Appendix A: Air Quality Impact Analysis and Health Risk Assessment

Ethanac Business Park

AIR QUALITY IMPACT ANALYSIS

CITY OF MENIFEE

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LIST OF ABBREVIATED TERMS

%	Percent
°F	Degrees Fahrenheit
(1)	Reference
µg/m^3	Microgram per Cubic Meter
1992 CO Plan	*1992 Federal Attainment Plan for Carbon Monoxide*
1993 CEQA Handbook	*SCAQMD's CEQA Air Quality Handbook (1993)*
2020-2045 RTP/SCS	*2020-2045 Regional Transportation Plan/Sustainable Communities Strategy*
AB 2595	California Clean Air Act
APN	Assessor Parcel Number
AQIA	Air Quality Impact Analysis
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BC	Black Carbon
C_2Cl_4	Perchloroethylene
C_4H_6	1,3-butadiene
C_6H_6	Benzene
C_2H_3Cl	Vinyl Chloride
C_2H_4O	Acetaldehyde
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CEQA Guidelines	*2019 CEQA Statute and Guidelines*
CH_2O	Formaldehyde
City	City of Menifee
CO	Carbon Monoxide
COH	Coefficient of Haze
COHb	Carboxyhemoglobin

Cr(VI)	Chromium
CTP	Clean Truck Program
DPM	Diesel Particulate Matter
DRRP	Diesel Risk Reduction Plan
EC	Elemental Carbon
EIR	Environmental Impact Report
EMFAC	Emissions FACtor Model
EPA	Environmental Protection Agency
ETW	Equivalent Test Weight
EV	Electric Vehicle
GHG	Greenhouse Gas
GVWR	Gross Vehicle Weight Rating
H_2S	Hydrogen Sulfide
HDT	Heavy-Duty Trucks
HHDT	Heavy-Heavy-Duty Trucks
HI	Hazard Index
hp	Horsepower
HPLV	High-Pressure-Low-Volume
I-PID	Planned Industrial Development
lbs	Pounds
lbs/day	Pounds Per Day
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHDT1/LHDT2	Light-Heavy-Duty Trucks
LST	Localized Significance Threshold
LST Methodology	*Final Localized Significance Threshold Methodology*
MATES	Multiple Air Toxics Exposure Study
MCY	Motorcycles
MDV	Medium-Duty Vehicles
MHDT	Medium-Heavy-Duty Trucks
MICR	Maximum Individual Cancer Risk
MM	Mitigation Measures
mph	Miles Per Hour
MWELO	California Department of Water Resources' Model Water Efficient
N_2	Nitrogen
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards

NO	Nitric Oxide
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
O_2	Oxygen
O_3	Ozone
O_2 Deficiency	Chronic Hypoxemia
OBD-II	On-Board Diagnostic
ODC	Ozone Depleting Compounds
Pb	Lead
PM	Particulate Matter
PM_{10}	Particulate Matter 10 microns in diameter or less
$PM_{2.5}$	Particulate Matter 2.5 microns in diameter or less
ppm	Parts Per Million
Project	Ethanac Business Park
RECLAIM	Regional Clean Air Incentives Market
RFG-2	Reformulated Gasoline Regulation
ROG	Reactive Organic Gases
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
sf	Square Feet
SIPs	State Implementation Plans
SO_2	Sulfur Dioxide
SO_4	Sulfates
SO_X	Sulfur Oxides
SOI	Sphere of Influence
SRA	Source Receptor Area
TAC	Toxic Air Contaminant
Title 24	California Building Code
TITLE I	Non-Attainment Provisions
TITLE II	Mobile Sources Provisions
TRU	Transportation Refrigeration Unit
UFP	Ultrafine Particles
URBEMIS	URBan EMISsions
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
vph	Vehicles Per Hour

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Ethanac Business Park Air Quality Impact Analysis* (AQIA) are summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the *CEQA Guidelines* (*CEQA Guidelines*) (1). Table ES-1 shows the findings of significance for each potential air quality impact under CEQA before and after any required mitigation measures (MM) described below.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Regional Construction Emissions	3.4	*Less Than Significant*	*n/a*
Localized Construction Emissions	3.6	*Less Than Significant*	*n/a*
Regional Operational Emissions	3.5	*Less Than Significant*	*n/a*
Localized Operational Emissions	3.6	*Less Than Significant*	*n/a*
CO "Hot Spot" Analysis	3.7	*Less Than Significant*	*n/a*
Air Quality Management Plan	3.8	*Less Than Significant*	*n/a*
Sensitive Receptors	3.9	*Less Than Significant*	*n/a*
Odors	3.10	*Less Than Significant*	*n/a*
Cumulative Impacts	3.11	*Less Than Significant*	*n/a*

ES.2 REGULATORY REQUIREMENTS

There are numerous requirements that development projects must comply with by law, and that were put in place by federal, State, and local regulatory agencies for the improvement of air quality.

Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or

other forms of property, or can cause excessive soiling on any other parcel shall conform to the requirements of the SCAQMD.

SCAQMD RULES

SCAQMD Rules that are currently applicable during construction activity for this Project are described below.

SCAQMD RULE 402

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

Odor Emissions. All uses shall be operated in a manner such that no offensive odor is perceptible at or beyond the property line of that use.

SCAQMD RULE 403

This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent and reduce fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earth moving and grading activities.

Dust Control, Operations. Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or other forms of property, or can cause excessive soiling on any other parcel, shall conform to the requirements of the SCAQMD.

SCAQMD RULE 1113

This rule serves to limit the VOC content of architectural coatings used on projects in the SCAQMD. This rule applies to any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects.

SCAQMD RULE 1301

This rule is intended to provide that pre-construction review requirements to ensure that new or relocated facilities do not interfere with progress in attainment of the National Ambient Air Quality Standards (NAAQS), while future economic growth within the SCAQMD is not unnecessarily restricted. The specific air quality goal is to achieve no net increases from new or modified permitted sources of nonattainment air contaminants or their precursors. Rule 1301 also limits emission increases of ammonia, and Ozone Depleting Compounds (ODCs) from new, modified or relocated facilities by requiring the use of Best Available Control Technology (BACT).

SCAQMD RULE 1401

A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States (U.S.) Bureau of Mines.

SCAQMD RULE 2305

The SCAQMD adopted Rule 2305, the Warehouse Indirect Source Rule, on May 7, 2021. Owners and operators associated with warehouses 100,000 square feet (sf) or larger are required to directly reduce nitrogen oxides (NO_X) and particulate matter emissions, or to otherwise facilitate emission and exposure reductions of these pollutants in nearby communities. The rule imposes a "Warehouse Points Compliance Obligation" (WPCO) on warehouse operators. Operators satisfy the WPCO by accumulating "Warehouse Actions and Investments to Reduce Emissions Points" (WAIRE Points) in a given 12-month period. WAIRE Points are awarded by implementing measures to reduce emissions listed on the WAIRE Menu, or by implementing a custom WAIRE Plan approved by the SCAQMD.

Although the Project would comply with Rule 2305, it should be noted that there is no way to quantify these reductions in the California Emissions Estimator Model (CalEEMod). Rule 2305 of SCAQMD may not be directly incorporated into CalEEMod due to its intricate requirements that deviate from the standard inputs typically used in the CalEEMod system. This rule employs a points system linked to factors like daily truck movements and specific operational details of warehouses, which are not typically accounted for in the general modeling framework of CalEEMod2. Moreover, CalEEMod might not have been updated to encompass the precise compliance and reporting specifications mandated by Rule 2305. These rules often pertain to specific regions or operational types, necessitating specialized calculations or data that exceed the current capabilities of CalEEMod. The two most pertinent regulatory requirements that could be modeled, are Rule 403 (Fugitive Dust) (2) and Rule 1113 (Architectural Coatings) (3). Credit for Rule 403 and Rule 1113 have been taken in the analysis.

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1 INTRODUCTION

This report presents the results of the AQIA prepared by Urban Crossroads, Inc., for the proposed Ethanac Business Park (Project). The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the Project and recommend measures to mitigate impacts considered potentially significant in comparison to thresholds established by the SCAQMD.

1.1 SITE LOCATION

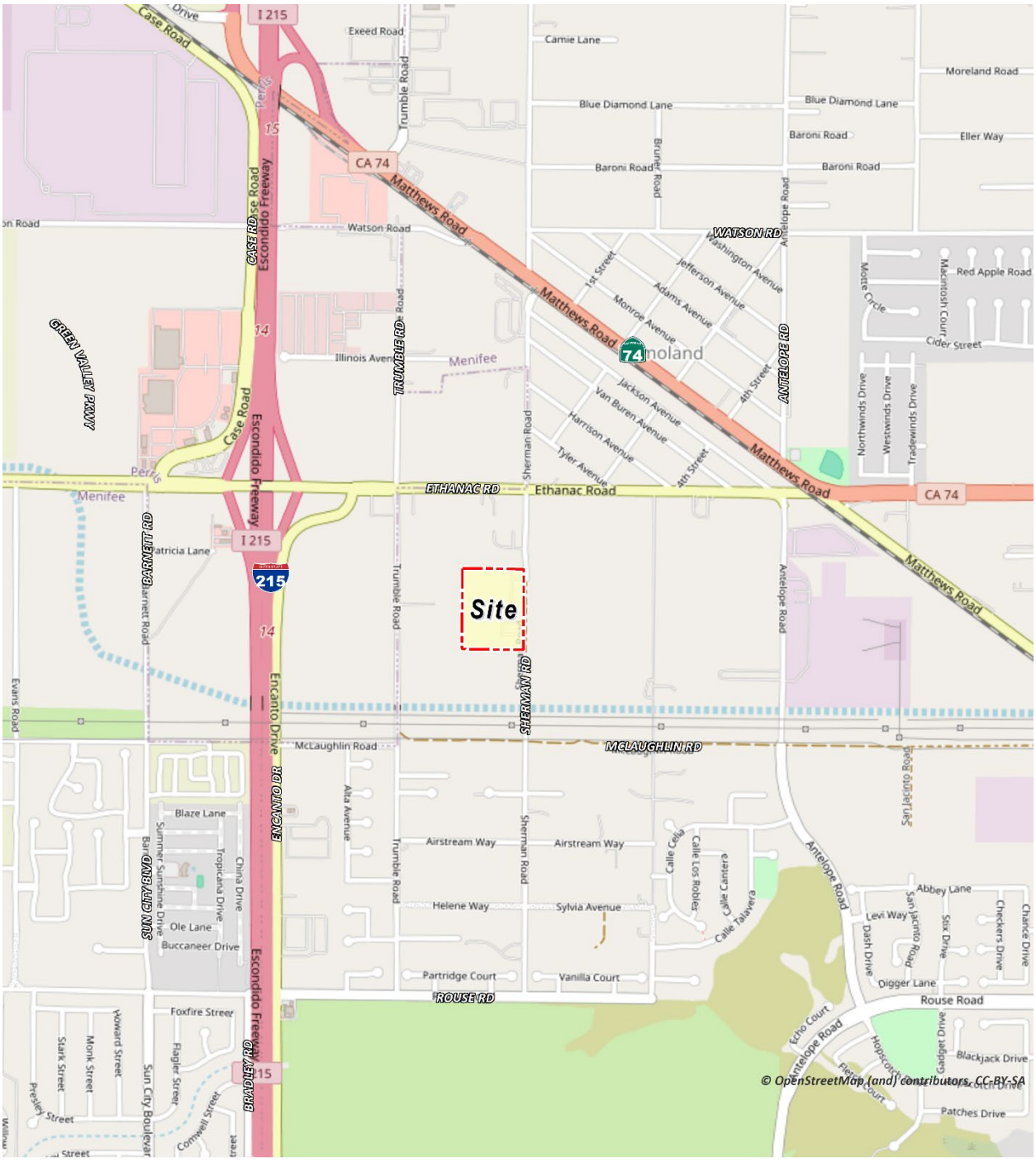
The proposed Project is located south of Ethanac Road, east of Trumble Road, west of Sherman Road, and north of McLaughlin Road in the City of Menifee as shown on Exhibit 1-A.

1.2 PROJECT DESCRIPTION

The Project includes the development of a 264,710-square-foot warehouse building which includes 10,000 square feet of office support space on an 11.47-acre site (see Exhibit 1-B). It is our understanding the proposed Project Planning Application consists of a Plot Plan (PLN23-0171), General Plan Amendment (PLN23-0173) to change the land use for a portion of the Project site from Heavy Industrial to Menifee North Specific Plan, Change of Zone (PLN23-0174) to change zoning for a portion of the Project site from Heavy Industrial to Menifee North Specific Plan, and a Specific Plan Amendment (PLN23-0175) to modify the boundary of the existing Menifee North Specific Plan to include the entire proposed Project site and designate it as Planning Area 2 (Industrial). The proposed Project is anticipated to have an Opening Year of 2026.

In addition, to support the Project development, there will be paving for off-site improvements associated with roadway construction and utility installation which includes widening Sherman Road from Ethanac Road to the southern end of the Project.

EXHIBIT 1-A: LOCATION MAP

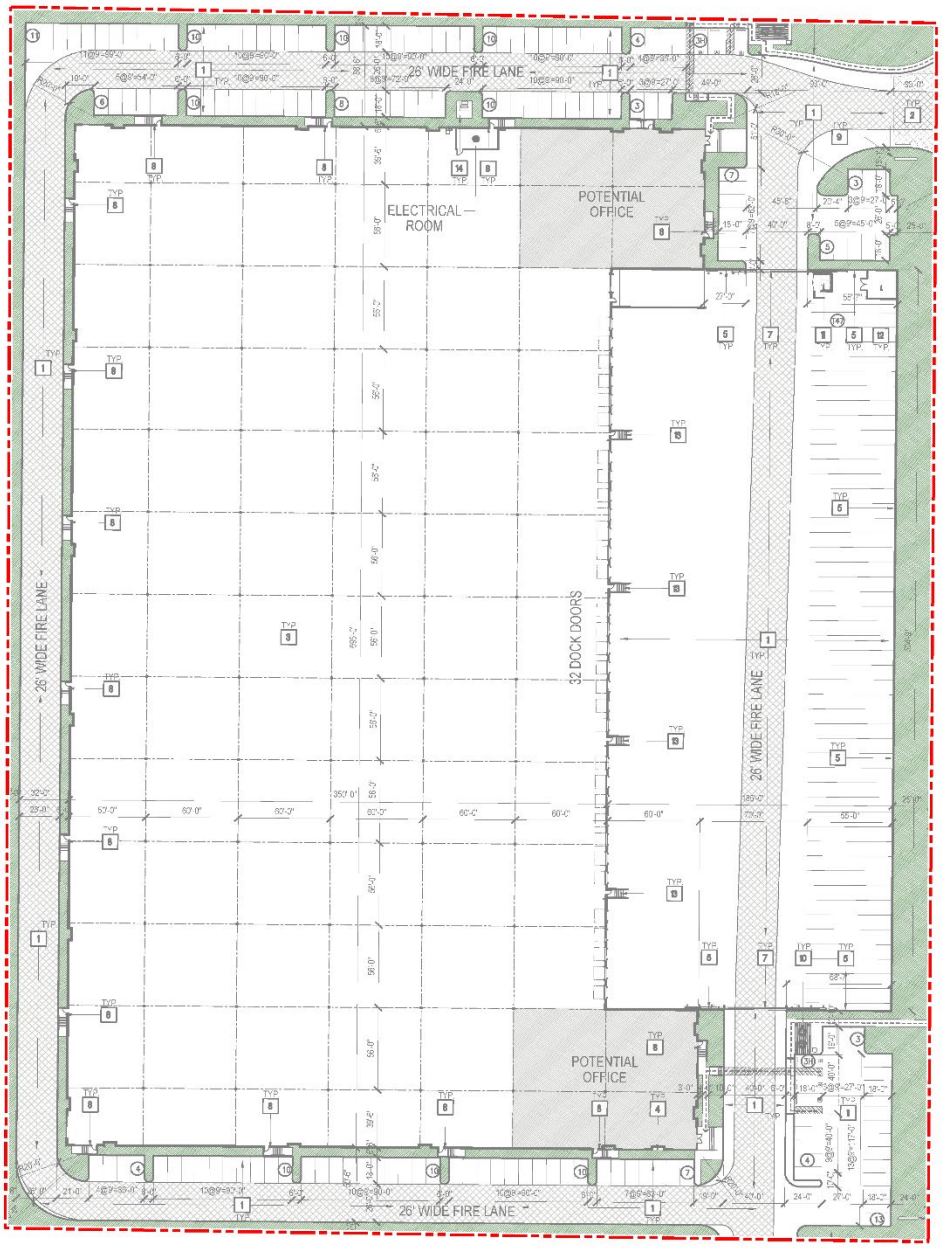


LEGEND:

N

Site Boundary

EXHIBIT 1-B: SITE PLAN



N

LEGEND:

Site Boundary

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2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

2.1 SOUTH COAST AIR BASIN

The Project site is located in the South Coast Air Basin (SCAB) within the jurisdiction of SCAQMD (4). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. As previously stated, the Project site is located within the SCAB, a 6,745-square-mile subregion of the SCAQMD, which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County.

The SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, and the San Diego Air Basin to the south.

2.2 REGIONAL CLIMATE

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

The annual average temperatures throughout the SCAB vary from the low to mid 60s (degrees Fahrenheit °[F]). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide (SO_2) to sulfates (SO_4) is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71% along the coast and 59% inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90% of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year, there are approximately 10 hours of possible sunshine, and on the longest day of the year, there are approximately 14½ hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides (NO_X) and carbon monoxide (CO) from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

2.3 WIND PATTERNS AND PROJECT LOCATION

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The SCAB is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

Wind patterns across the south coastal region are characterized by westerly and southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

2.4 CRITERIA POLLUTANTS

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and health effects are identified below (5):

TABLE 2-1: CRITERIA POLLUTANTS

Criteria Pollutant	Description	Sources	Health Effects
CO	CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone (O_3), motor vehicles operating at slow speeds are the primary source of CO in the SCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment, and residential heating.	Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen (O_2) supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with O_2 transport and competing with O_2 to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for O_2 supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (O_2 deficiency) as seen at high altitudes.
SO_2	SO_2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant	Coal or oil burning power plants and industries,	A few minutes of exposure to low levels of SO_2 can result in airway constriction in some

Criteria Pollutant	Description	Sources	Health Effects
	mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms SO_4. Collectively, these pollutants are referred to as sulfur oxides (SO_X).	refineries, diesel engines.	asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2. Animal studies suggest that despite SO_2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO_2 levels. In these studies, efforts to separate the effects of SO_2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor.
NO_X	NO_X consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with O_2. Their lifespan in the atmosphere ranges from	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming	Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is

Criteria Pollutant	Description	Sources	Health Effects
	one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. NO_X is typically created during combustion processes and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by a regional monitoring station.	equipment, and residential heating.	associated with long-term exposure to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. In animals, exposure to levels of NO_2 considerably higher than ambient concentrations result in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of O_3 exposure increases when animals are exposed to a combination of O_3 and NO_2.
O_3	O_3 is a highly reactive and unstable gas that is formed when VOCs and NO_X, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.	Formed when reactive organic gases (ROG) and NO_X react in the presence of sunlight. ROG sources include any source that burns fuels, (e.g., gasoline, natural gas, wood, oil) solvents, petroleum processing and	Individuals exercising outdoors, children, and people with pre-existing lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for O_3 effects. Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased

Criteria Pollutant	Description	Sources	Health Effects
		storage, and pesticides.	susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated O_3 levels are associated with increased school absences. In recent years, a correlation between elevated ambient O_3 levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple outdoor sports and live in communities with high O_3 levels. O_3 exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes O_3 may be more toxic than exposure to O_3 alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.
Particulate Matter	PM_{10}: A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Particulate matter pollution is a major cause of reduced visibility (haze) which is caused by the scattering of light and consequently the significant reduction in air clarity. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they	Sources of PM_{10} include road dust, windblown dust, and construction. Also formed from other pollutants (acid rain, NO_X, SO_X, organics). Incomplete combustion of any fuel.	A consistent correlation between elevated ambient fine particulate matter (PM_{10} and $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In

Criteria Pollutant	Description	Sources	Health Effects
	may be deposited, resulting in adverse health effects. Additionally, it should be noted that PM_{10} is considered a criteria air pollutant. $PM_{2.5}$: A similar air pollutant to PM_{10} consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include SO_4 formed from SO_2 release from power plants and industrial facilities and nitrates that are formed from NO_X release from power plants, automobiles, and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. $PM_{2.5}$ is a criteria air pollutant.	$PM_{2.5}$ comes from fuel combustion in motor vehicles, equipment, and industrial sources, residential and agricultural burning. Also formed from reaction of other pollutants (acid rain, NO_X, SO_X, organics).	recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in lifespan, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in children without asthma, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$.
VOC	VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include	Organic chemicals are widely used as ingredients in household products. Paints, varnishes, and wax all contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing, and hobby products. Fuels are made up of organic chemicals. All of these products can	Breathing VOCs can irritate the eyes, nose, and throat, can cause difficulty breathing and nausea, and can damage the central nervous system as well as other organs. Some VOCs can cause cancer. Not all VOCs have all these health effects, though many have several.

Criteria Pollutant	Description	Sources	Health Effects
	gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms VOC and ROG (see below) are used interchangeably.	release organic compounds while you are using them, and, to some degree, when they are stored.	
ROG	Similar to VOC, ROGs are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO_X react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms ROG and VOC (see previous) are used interchangeably.	Sources similar to VOCs.	Health effects similar to VOCs.
Lead (Pb)	Pb is a heavy metal that is highly persistent in the environment and is considered a criteria pollutant. In the past, the primary source of Pb in the air was emissions from vehicles burning leaded gasoline. The major sources of Pb emissions are ore and metals processing, particularly Pb smelters, and piston-engine aircraft operating on leaded aviation gasoline. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. It should be noted that the Project does not include operational activities such as metal processing or Pb acid battery manufacturing. As such,	Metal smelters, resource recovery, leaded gasoline, deterioration of Pb paint.	Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure. Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the

Criteria Pollutant	Description	Sources	Health Effects
	the Project is not anticipated to generate a quantifiable amount of Pb emissions.		respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.
Odor	Odor means the perception experienced by a person when one or more chemical substances in the air come into contact with the human olfactory nerves (6).	Odors can come from many sources including animals, human activities, industry, nature, and vehicles.	Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

2.5 EXISTING AIR QUALITY

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table 2-2 (7).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards. At the time of this AQIA, the most recent state and federal standards were updated by CARB on May 4, 2016 and are presented in Table 2-2. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, PM_{10}, and $PM_{2.5}$ are not to be exceeded. All others are not to be equaled or exceeded. It should be noted that the three-year period is presented for informational purposes and is not the basis for how the state assigns attainment status. Attainment status for a pollutant means that the SCAQMD meets the standards set by the EPA or the California EPA (CalEPA). Conversely, nonattainment means that an area has monitored air quality that does not meet the NAAQS or CAAQS standards. In order to improve air quality in nonattainment areas, a State Implementation Plan (SIP) is drafted by CARB. The SIP outlines the measures that the state will take to improve air quality. Once nonattainment areas meet the standards and additional redesignation requirements, the EPA will designate the area as a maintenance area (8).

TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (1 OF 2)

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 …

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TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (2 OF 2)

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.

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2.6 REGIONAL AIR QUALITY

Air pollution contributes to a wide variety of adverse health effects. California law mandates that CARB must establish State standards focusing on public health, safety, and welfare. These standards delineate the permissible levels of pollutants in the ambient air. Currently, there are State standards in place for ten pollutants: O_3, suspended particulate matter PM_{10} and $PM_{2.5}$), CO, NO_2, SO_2, sulfates, Pb, H_2S, and visibility-reducing particles. The SCAQMD monitors levels of various criteria pollutants at 35 permanent monitoring stations and 2 single-pollutant source Pb air monitoring sites throughout the air district (9). Additionally, the federal Clean Air Act mandates the EPA to establish national standards alongside these State regulations. The EPA has established NAAQS for six of the most common air pollutants, which are known as criteria pollutants: CO, Pb, O_3, particulate matter (PM_{10} and $PM_{2.5}$), NO_2, and SO_2. On January 25, 2024, CARB posted the proposed 2023 amendments to the state and national area designations. See Table 2-3 for attainment designations for the SCAB (10). Appendix 2.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB.

TABLE 2-3: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SCAB

Criteria Pollutant	State Designation	Federal Designation
O_3 – 1-hour standard	Nonattainment	--
O_3 – 8-hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Unclassifiable/Attainment
NO_2	Attainment	Unclassifiable/Attainment
SO_2	Attainment	Unclassifiable/Attainment
Sulfates	Attaintment	--
Pb[1]	Attainment	Unclassifiable/Attainment
H_2S	Unclassified	--
Visibility reducing particles	Unclassified	--

Note: See Appendix 2.1 for a detailed map of State/National Area Designations within the SCAB
"-" = no standard.

2.7 LOCAL AIR QUALITY

The SCAQMD has designated general forecast areas and air monitoring areas (referred to as Source Receptor Areas [SRA]) throughout the district in order to inform Southern California residents about the air quality conditions. The Project site is located within the Perris Valley area (SRA 24). The Perris Valley monitoring station is located approximately 4.22 miles northwest of the Project site and reports air quality statistics for O_3 for 2020 and 2021 and PM_{10} for 2020. The

[1] The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

Lake Elsinore monitoring station, which is located 9.55 miles southwest of the Project site in SRA 25, records air quality data for CO and NO_2 for 2020-2022 as well as O_3 for 2022 and PM_{10} for 2021 and 2022. The Metropolitan Riverside County monitoring station, which is located 22.42 miles northwest of the Project site in SRA 23, records air quality data for $PM_{2.5}$. It should be noted that data from the Lake Elsinore and Metropolitan Riverside County monitoring stations was utilized in lieu of the Perris Valley monitoring station only in instances where data was not available.

The most recent three (3) years of data available is shown in Table 2-4 and identifies the number of days ambient air quality standards were exceeded for the study area, which is considered to be representative of the local air quality at the Development Site. Data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ for 2020 through 2022 was obtained from the SCAQMD Air Quality Data Tables (11). Additionally, data for SO_2 has been omitted as attainment is regularly met in the SCAB and few monitoring stations measure SO_2 concentrations.

TABLE 2-4: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2020-2022

Pollutant	Standard	Year		
		2020	2021	2022
O_3				
Maximum Federal 1-Hour Concentration (ppm)		0.125	0.117	0.121
Maximum Federal 8-Hour Concentration (ppm)		0.106	0.094	0.091
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	34	25	17
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	74	60	37
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	0.9	0.9	0.9
Maximum Federal 8-Hour Concentration	> 20 ppm	0.7	0.8	0.6
NO_2				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.044	0.044	0.037
Annual Federal Standard Design Value		0.009	0.007	0.007
PM_{10}				
Maximum Federal 24-Hour Concentration (µg/m^3)	> 150 µg/m^3	64	89	91
Annual Federal Arithmetic Mean (µg/m^3)		29.7	21.4	19.8
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m^3	0	0	0
Number of Days Exceeding State 24-Hour Standard	> 50 µg/m^3	3	4	1
$PM_{2.5}$				
Maximum Federal 24-Hour Concentration (µg/m^3)	> 35 µg/m^3	50.70	77.6	32.1
Annual Federal Arithmetic Mean (µg/m^3)	> 12 µg/m^3	12.41	14.28	11.49
Number of Days Exceeding Federal 24-Hour Standard	> 35 µg/m^3	2	13	0

ppm = Parts Per Million
µg/m^3 = Microgram per Cubic Meter
Source: Data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ was obtained from SCAQMD Air Quality Data Tables.

2.8 REGULATORY BACKGROUND

2.8.1 FEDERAL REGULATIONS

The EPA is responsible for setting and enforcing the NAAQS for O_3, CO, NO_X, SO_2, PM_{10}, and Pb (12). The EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (13). The CAA also mandates that states submit and implement SIPs for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions) (14) (15). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. Table 2-3 (previously presented) provides the NAAQS within the SCAB.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_X. NO_X is a collective term that includes all forms of NO_X which are emitted as byproducts of the combustion process.

2.8.2 CALIFORNIA REGULATIONS

CARB

CARB, which became part of CalEPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. AB 2595 mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for SO_4, visibility, hydrogen sulfide (H_2S), and vinyl chloride (C_2H_3Cl). However, at this time, H_2S and C_2H_3Cl are not measured at any monitoring stations in the SCAB

because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (16) (12).

Local air quality management districts, such as the SCAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare Air Quality Management Plans (AQMP) that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g., motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a 5% or more annual reduction in emissions or 15% or more in a period of three years for ROGs, NO_X, CO and PM_{10}. However, air basins may use an alternative emission reduction strategy that achieves a reduction of less than 5% per year under certain circumstances.

TITLE 24 ENERGY EFFICIENCY STANDARDS AND CALIFORNIA GREEN BUILDING STANDARDS

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide $1.5 billion in consumer benefits and reduce GHG emissions by 10 million metric tons (17). The Project would be required to comply with the applicable standards in place at the time plan check submittals are made. These require, among other items (18):

NONRESIDENTIAL MANDATORY MEASURES

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty EV supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
    - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1).
    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor- mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
    - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).

- Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).

- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is projected to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

2.8.3 AQMP

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMP to meet the state and federal ambient air quality standards (19). AQMPs are updated regularly to ensure an effective reduction in emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 4.10.

2.9 REGIONAL AIR QUALITY IMPROVEMENT

The Project is within the jurisdiction of the SCAQMD. In 1976, California adopted the Lewis Air Quality Management Act which created SCAQMD from a voluntary association of air pollution control districts in Los Angeles, Orange, Riverside, and San Bernardino counties. The geographic area of which SCAQMD consists of is known as the SCAB. SCAQMD develops comprehensive plans and regulatory programs for the region to attain federal standards by dates specified in federal law. The agency is also responsible for meeting state standards by the earliest date achievable, using reasonably available control measures.

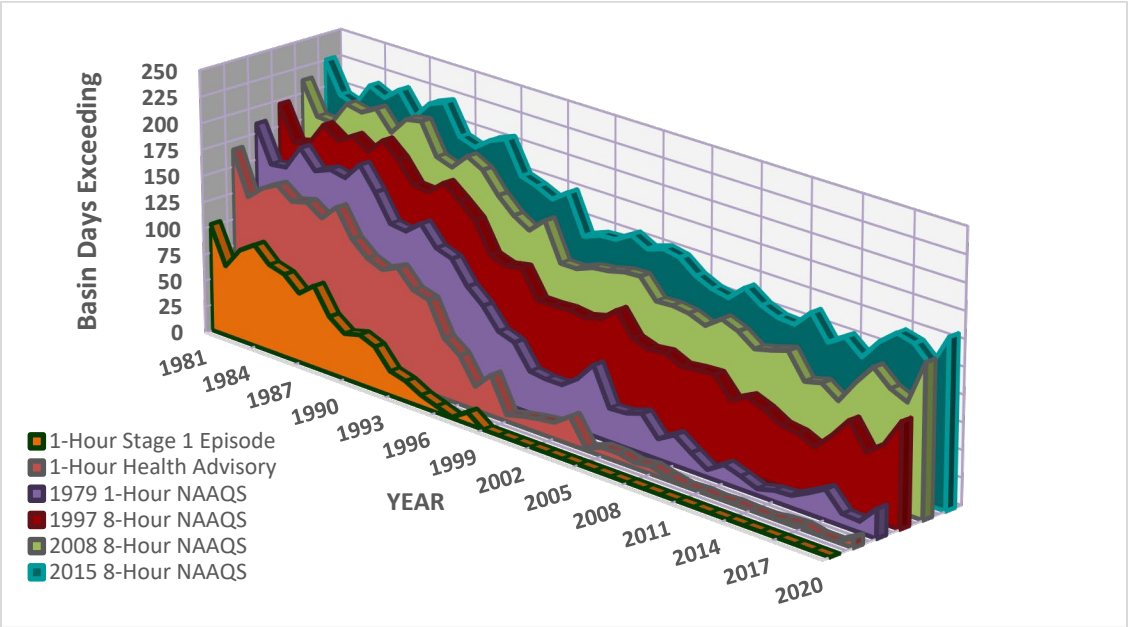
SCAQMD rule development through the 1970s and 1980s resulted in dramatic improvement in SCAB air quality. Nearly all control programs developed through the early 1990s relied on (i) the development and application of cleaner technology; (ii) add-on emission controls, and (iii) uniform CEQA review throughout the SCAB. Industrial emission sources have been significantly

reduced by this approach and vehicular emissions have been reduced by technologies implemented at the state level by CARB.

As discussed above, the SCAQMD is the lead agency charged with regulating air quality emission reductions for the entire SCAB. SCAQMD created AQMPs which represent a regional blueprint for achieving healthful air on behalf of the 16 million residents of the SCAB. The 2012 AQMP states, "the remarkable historical improvement in air quality since the 1970s is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs" (20).

Emissions of O_3, NO_X, VOC, and CO have been decreasing in the SCAB since 1975 and are projected to continue to decrease through 2020 (21). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled (VMT) in the SCAB continue to increase, NO_X and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. O_3 contour maps show that the number of days exceeding the 8-hour NAAQS has generally decreased between 1980 and 2020. For 2020, there was an overall decrease in exceedance days compared with the 1980 period. However, as shown in Table 2-5, O_3 levels have increased in the past three years due to higher temperatures and stagnant weather conditions. Notwithstanding, O_3 levels in the SCAB have decreased substantially over the last 30 years with the current maximum measured concentrations being approximately one-third of concentrations within the late 70s (22).

TABLE 2-5: SCAB O_3 TREND

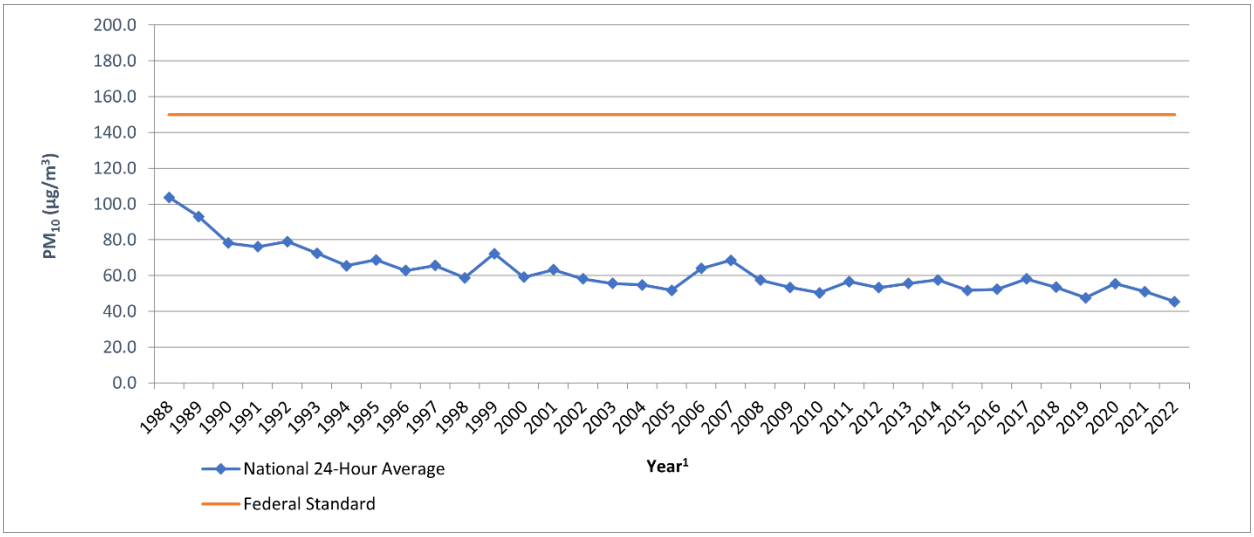


Source: 2020 SCAQMD, Historical O_3 Air Quality Trends (1976-2020)

The overall trends of PM_{10} and $PM_{2.5}$ levels in the air (not emissions) show an overall improvement since 1975. Direct emissions of PM_{10} have remained somewhat constant in the SCAB and direct emissions of $PM_{2.5}$ have decreased slightly since 1975. Area wide sources (fugitive dust from roads, dust from construction, and other sources) contribute the greatest amount of direct particulate matter emissions.

As with other pollutants, the most recent PM_{10} statistics show an overall improvement as illustrated in Tables 2-7 and 2-8. During the period for which data are available, the 24-hour national annual average concentration for PM_{10} decreased by approximately 56%, from 103.7 microgram per cubic meter (µg/m³) in 1988 to 45.5 µg/m³ in 2022 (23). Although the values are below the federal standard, it should be noted that there are days within the year where the concentrations would exceed the threshold. The 24-hour state annual average for emissions for PM_{10}, have decreased by approximately 64%, from 93.9 µg/m³ in 1989 to 37.3 µg/m³ in 2022 (23). Although data in the late 1990s show some variability, this is probably due to the advances in meteorological science rather than a change in emissions. Similar to the ambient concentrations, the calculated number of days above the 24-hour PM_{10} standards has also shown an overall drop.

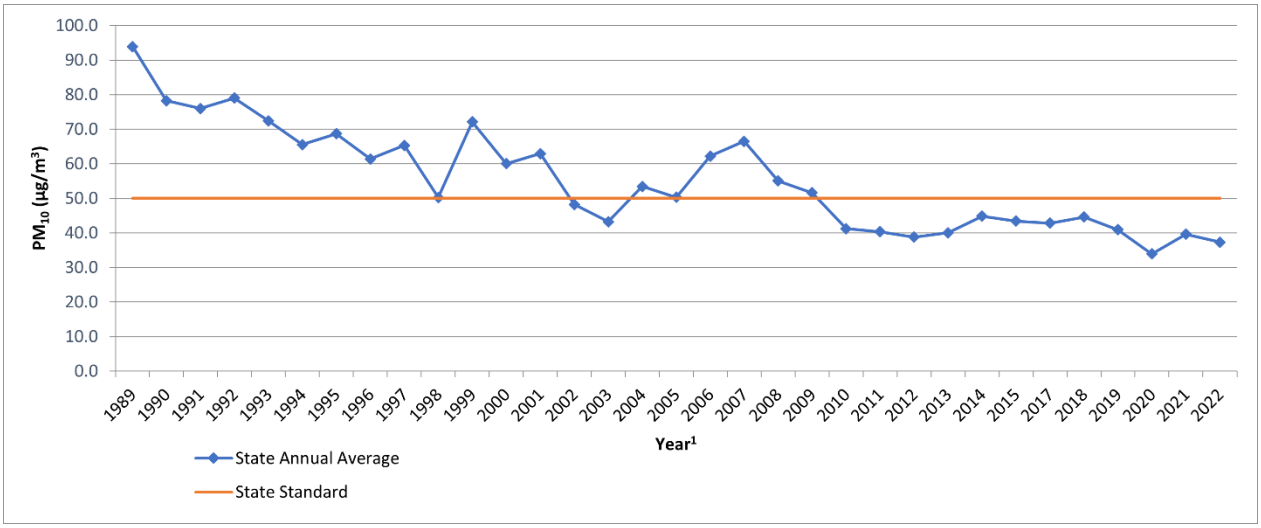
TABLE 2-6: SCAB AVERAGE 24-HOUR CONCENTRATION PM_{10} TREND (BASED ON FEDERAL STANDARD)[1]



Source: 2023 CARB, iADAM: Top Four Summary: PM_{10} 24-Hour Averages (1988-2022)

[1] Some years have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

TABLE 2-7: SCAB ANNUAL AVERAGE CONCENTRATION PM_{10} TREND (BASED ON STATE STANDARD)[1]

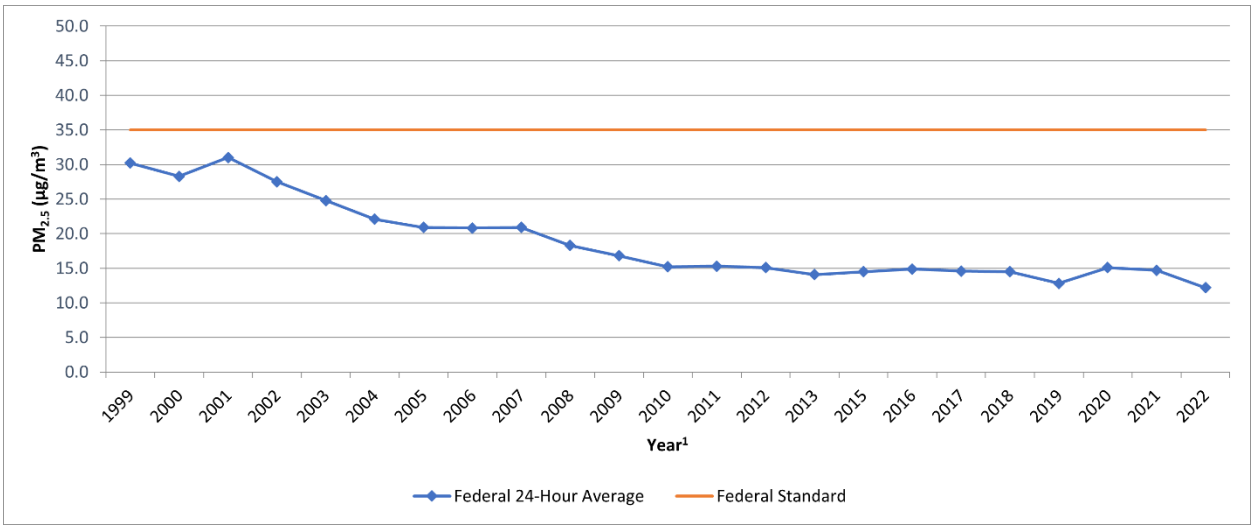


Source: 2023 CARB, iADAM: Top Four Summary: PM_{10} 24-Hour Averages (1988-2022)

[1] Some years have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

Tables 2-9 and 2-10 show the most recent 24-hour average and annual $PM_{2.5}$ concentrations in the SCAB. Overall, the national and state annual average concentrations have decreased by almost 60% and 42% respectively (23). It should be noted that the SCAB is currently designated as nonattainment for the state and federal $PM_{2.5}$ standards.

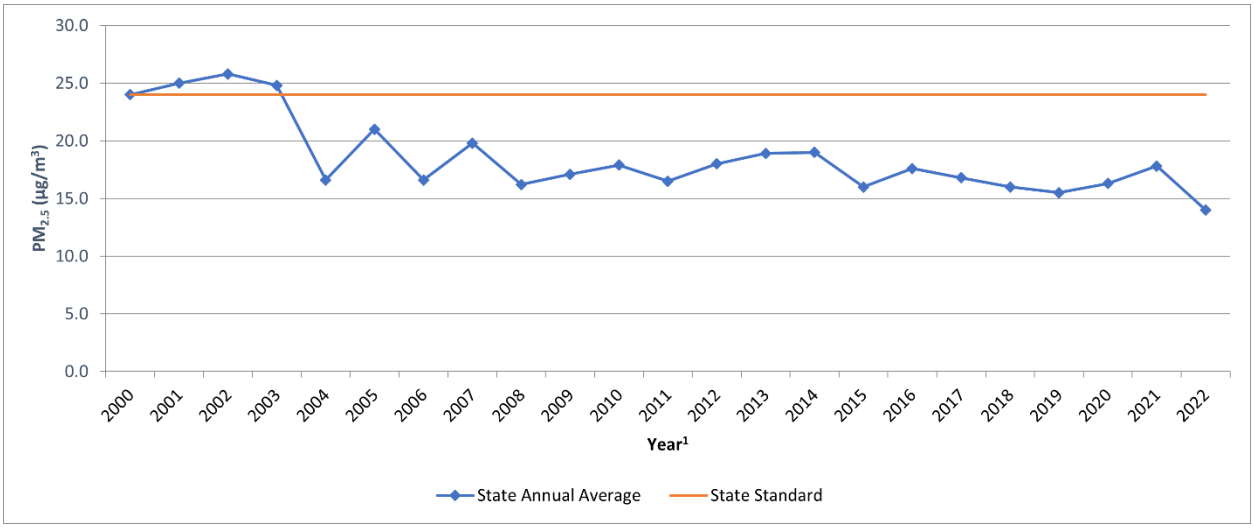
TABLE 2-8: SCAB 24-HOUR AVERAGE CONCENTRATION $PM_{2.5}$ TREND (BASED ON FEDERAL STANDARD)[1]



Source: 2023 CARB, iADAM: Top Four Summary: $PM_{2.5}$ 24-Hour Averages (1999-2022)

[1] Some years have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

TABLE 2-9: SCAB ANNUAL AVERAGE CONCENTRATION $PM_{2.5}$ TREND (BASED ON STATE STANDARD)[1]



Source: 2023 CARB, iADAM: Top Four Summary: $PM_{2.5}$ 24-Hour Averages (1999-2022)

[1] Some years have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

While the 2012 AQMP PM_{10} attainment demonstration and the 2015 associated supplemental SIP submission indicated that attainment of the 24-hour standard was predicted to occur by the end of 2015, it could not anticipate the effect of the ongoing drought on the measured $PM_{2.5}$.

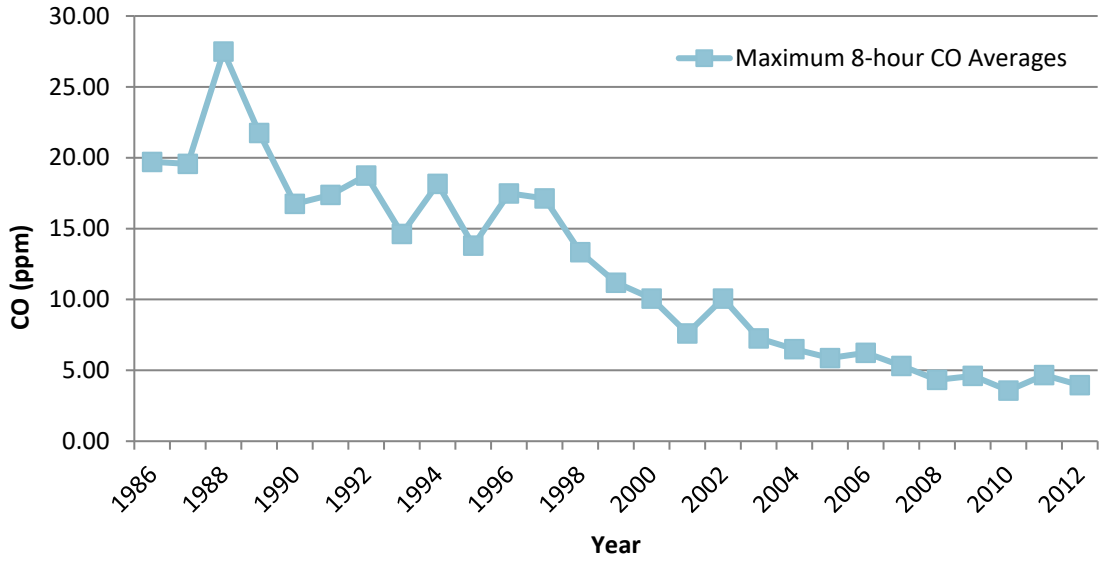
The 2006 to 2010 base period used for the 2012 attainment demonstration had near-normal rainfall. While the trend of $PM_{2.5}$-equivalent emission reductions continued through 2015, the severe drought conditions contributed to the $PM_{2.5}$ increases observed after 2012. As a result of the disrupted progress toward attainment of the federal 24-hour $PM_{2.5}$ standard, SCAQMD submitted a request and the EPA approved, in January 2016, a "bump up" to the nonattainment classification from "moderate" to "serious," with a new attainment deadline as soon as practicable, but not beyond December 31, 2019. As of March 14, 2019, the EPA approved portions of a SIP revision submitted by California to address CAA requirements for the 2006 24-hour $PM_{2.5}$ NAAQS in the Los Angeles-SCAB Serious $PM_{2.5}$ nonattainment area. The EPA also approved 2017 and 2019 motor vehicle emissions budgets for transportation conformity purposes and inter-pollutant trading ratios for use in transportation conformity analyses (24).

In December 2022, the SCAQMD released the Final 2022 AQMP. The 2022 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (25). Similar to the 2016 AQMP, the 2022 AQMP incorporates scientific and technological information and planning assumptions, including the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS) and updated emission inventory methodologies for various source categories (26).

The most recent CO concentrations in the SCAB are shown in Table 2-11 (23). CO concentrations in the SCAB have decreased markedly — a total decrease of more about 80% in the peak 8-hour

concentration from 1986 to 2012. It should be noted 2012 is the most recent year where 8-hour CO averages and related statistics are available in the SCAB. The number of exceedance days has also declined. The entire SCAB is now designated as attainment for both the state and national CO standards. Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations.

TABLE 2-10: SCAB 8-HOUR AVERAGE CONCENTRATION CO TREND[1]

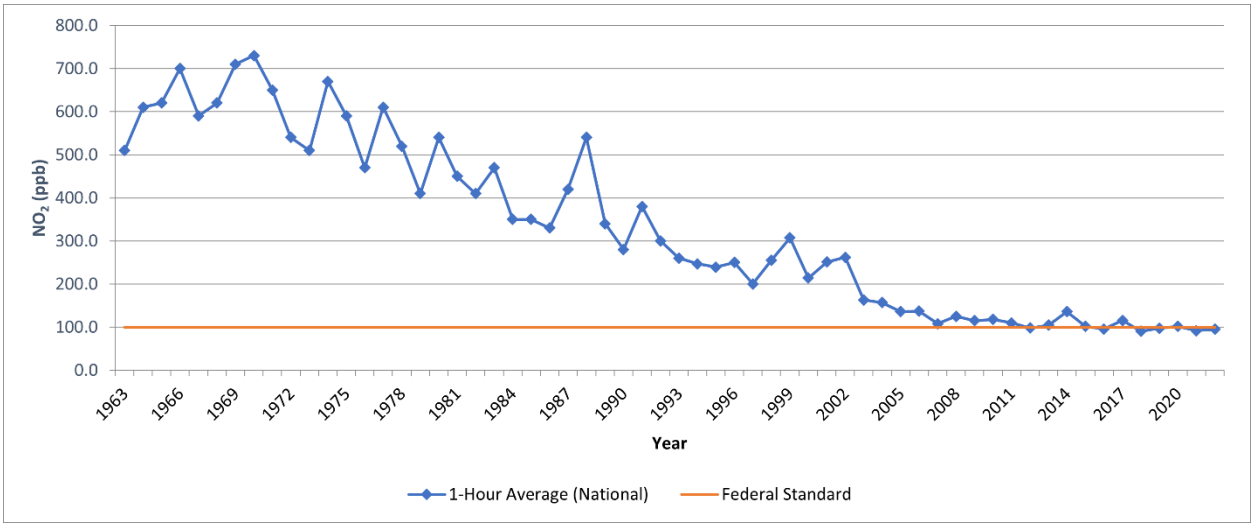


Source: 2020 CARB, iADAM: Top Four Summary: CO 8-Hour Averages (1986-2012)
[1] The most recent year where 8-hour concentration data is available is 2012.

Part of the control process of the SCAQMD's duty to greatly improve the air quality in the SCAB is the uniform CEQA review procedures required by SCAQMD's *CEQA Air Quality Handbook (1993)* (*1993 CEQA Handbook*) (27). The single threshold of significance used to assess Project direct and cumulative impacts has in fact "worked" as evidenced by the track record of the air quality in the SCAB dramatically improving over the course of the past decades. As stated by the SCAQMD, the District's thresholds of significance are based on factual and scientific data and are therefore appropriate thresholds of significance to use for this Project.

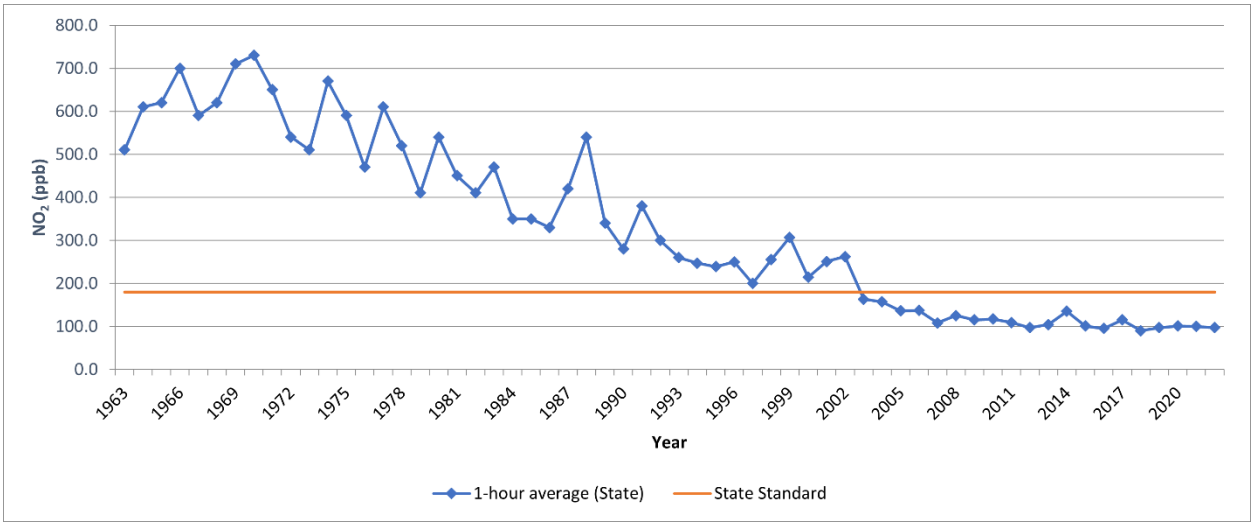
The most recent NO_2 data for the SCAB is shown in Tables 2-12 and 2-13 (23). Over the last 50 years, NO_2 values have decreased significantly; the peak 1-hour national and state averages for 2022 is approximately 81% lower than what it was during 1963. The SCAB attained the State 1-hour NO_2 standard in 1994, bringing the entire state into attainment. A new state annual average standard of 0.030 ppm was adopted by CARB in February 2007 (28). The new standard is just barely exceeded in the SCAQMD. NO_2 is formed from NO_X emissions, which also contribute to O_3. As a result, the majority of the future emission control measures would be implemented as part of the overall O_3 control strategy. Many of these control measures would target mobile sources, which account for more than three-quarters of California's NO_X emissions. These measures are expected to bring the SCAQMD into attainment of the state annual average standard.

TABLE 2-11: SCAB 1-HOUR AVERAGE CONCENTRATION NO_2 TREND (BASED ON FEDERAL STANDARD)



Source: 2023 CARB, iADAM: Top Four Summary: CO 1-Hour Averages (1963-2022)

TABLE 2-12: SCAB 1-HOUR AVERAGE CONCENTRATION NO_2 TREND (BASED ON STATE STANDARD)



Source: 2023 CARB, iADAM: Top Four Summary: CO 1-Hour Averages (1963-2022)

2.9.1 TOXIC AIR CONTAMINANTS (TAC) TRENDS

In 1984, as a result of public concern for exposure to airborne carcinogens, CARB adopted regulations to reduce the amount of TAC emissions resulting from mobile and area sources, such as cars, trucks, stationary sources, and consumer products. According to the *Ambient and Emission Trends of Toxic Air Contaminants in California* journal article (29) which was prepared for CARB, results show that between 1990-2012, ambient concentration and emission trends for the seven TACs responsible for most of the known cancer risk associated with airborne exposure in California have declined significantly (between 1990 and 2012). The seven TACs studied include those that are derived from mobile sources: diesel particulate matter (DPM), benzene (C_6H_6), and

1,3-butadiene (C_4H_6); those that are derived from stationary sources: perchloroethylene (C_2Cl_4) and hexavalent chromium (Cr(VI)); and those derived from photochemical reactions of emitted VOCs: formaldehyde (CH_2O) and acetaldehyde (C_2H_4O).[2] The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risk.

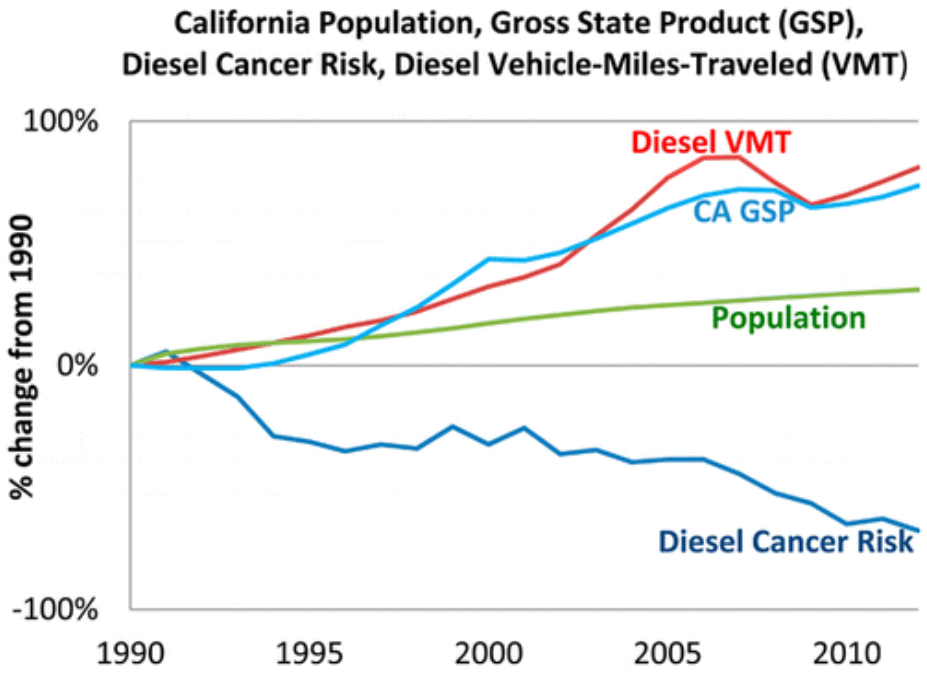
MOBILE SOURCE TACS

CARB introduced two programs that aimed at reducing mobile emissions for light and medium duty vehicles through vehicle emissions controls and cleaner fuel. In California, light-duty vehicles sold after 1996 are equipped with California's second-generation On-Board Diagnostic (OBD-II) system. The OBD-II system monitors virtually every component that can affect the emission performance of the vehicle to ensure that the vehicle remains as clean as possible over its entire life and assists repair technicians in diagnosing and fixing problems with the computerized engine controls. If a problem is detected, the OBD-II system illuminates a warning lamp on the vehicle instrument panel to alert the driver. This warning lamp typically contains the phrase "Check Engine" or "Service Engine Soon." The system would also store important information about the detected malfunction so that a repair technician can accurately find and fix the problem. CARB has recently developed similar OBD requirements for heavy-duty vehicles over 14,000 pounds (lbs). CARB's phase II Reformulated Gasoline Regulation (RFG-2), adopted in 1996, also led to a reduction of mobile source emissions. Through such regulations, benzene levels declined 88% from 1990-2012. 1,3-Butadiene concentrations also declined 85% from 1990-2012 as a result of the use of reformulated gasoline and motor vehicle regulations (29).

In 2000, CARB's Diesel Risk Reduction Plan (DRRP) recommended the replacement and retrofit of diesel-fueled engines and the use of ultra-low-sulfur (<15 ppm) diesel fuel. As a result of these measures, DPM concentrations have declined 68% since 2000, even though the state's population increased 31% and the amount of diesel vehicles miles traveled increased 81%, as shown on Exhibit 2-B. With the implementation of these diesel-related control regulations, CARB expects a DPM decline of 71% for 2000-2020.

[2] It should be noted that ambient DPM concentrations are not measured directly. Rather, a surrogate method using the coefficient of haze (COH) and elemental carbon (EC) is used to estimate DPM concentrations.

EXHIBIT 2-A: DPM AND DIESEL VEHICLE MILES TREND



Source: 2020 CARB

DIESEL REGULATIONS

CARB and the Ports of Los Angeles and Long Beach have adopted several iterations of regulations for diesel trucks that are aimed at reducing DPM. More specifically, CARB Drayage Truck Regulation (30), CARB statewide On-road Truck and Bus Regulation (31), and the Ports of Los Angeles and Long Beach Clean Truck Program (CTP) require accelerated implementation of "clean trucks" into the statewide truck fleet (32). In other words, older more polluting trucks would be replaced with newer, cleaner trucks as a function of these regulatory requirements.

Moreover, the average statewide DPM emissions for Heavy Duty Trucks (HDT), in terms of grams of DPM generated per mile traveled, would dramatically be reduced due to the aforementioned regulatory requirements.

Diesel emissions identified in this analysis would therefore overstate future DPM emissions since not all the regulatory requirements are reflected in the modeling.

CANCER RISK TRENDS

Based on information available from CARB, overall cancer risk throughout the SCAB has had a declining trend since 1990. In 1998, following an exhaustive 10-year scientific assessment process, CARB identified particulate matter from diesel-fueled engines as a toxic air contaminant. The SCAQMD initiated a comprehensive urban toxic air pollution study called the Multiple Air Toxics Exposure Study (MATES). DPM accounts for more than 70% of the cancer risk.

In January 2018, as part of the overall effort to reduce air toxics exposure in the SCAB, SCAQMD began conducting the MATES V Program. MATES V field measurements were conducted at ten fixed sites (the same sites selected for MATES III and IV) to assess trends in air toxics levels. MATES V also included measurements of ultrafine particles (UFP) and black carbon (BC) concentrations, which can be compared to the UFP levels measured in MATES IV (33). The final report for the MATES V study was published August 2021. In addition to new measurements and updated modeling results, several key updates were implemented in MATES V. First, MATES V estimates cancer risks by taking into account multiple exposure pathways, which includes inhalation and non-inhalation pathways. This approach is consistent with how cancer risks are estimated in South Coast AQMD's programs such as permitting, Air Toxics Hot Spots (AB2588), and CEQA. Previous MATES studies quantified the cancer risks based on the inhalation pathway only. Second, along with cancer risk estimates, MATES V includes information on the chronic non-cancer risks from inhalation and non-inhalation pathways for the first time. Cancer risks and chronic non-cancer risks from MATES II through IV measurements have been re-examined using current Office of Environmental Health Hazard Assessment (OEHHA) and CalEPA risk assessment methodologies and modern statistical methods to examine the trends over time (34).

MATES-V calculated cancer risks based on monitoring data collected at ten fixed sites within the SCAB. None of the fixed monitoring sites are within the local area of the Project site. However, MATES-V has extrapolated the excess cancer risk levels throughout the SCAB by modeling the specific grids. The Project is located within a quadrant of the geographic grid of the MATES-V model which predicted a cancer risk of 288 in one million for the area containing the Project site. DPM is included in this cancer risk along with all other TAC sources. As in previous MATES iterations, DPM is the largest contributor to overall air toxics cancer risk. However, the average levels of DPM in MATES V are 53% lower at the 10 monitoring sites compared to MATES IV. Cumulative Project generated TACs are limited to DPM.

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3 PROJECT AIR QUALITY IMPACT

3.1 INTRODUCTION

This study quantifies air quality emissions generated by construction and operation of the Project and addresses whether the Project conflicts with implementation of the SCAQMD's AQMP and Lead Agency planning regulations. The analysis of Project-generated air emissions determines whether the Project would result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is in non-attainment under an applicable NAAQS and CAAQS. Additionally, the Project has been evaluated to determine whether the Project would expose sensitive receptors to substantial pollutant concentrations and the impacts of odors. The significance of these potential impacts is described in the following sections.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the *CEQA Guidelines* (14 CCR §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would (1):

- Conflict with or obstruct implementation of the applicable air quality plan.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SCAQMD has also developed regional significance thresholds for other regulated pollutants, as summarized at Table 3-1 (35). The SCAQMD's *CEQA Air Quality Significance Thresholds* (March 2023) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

TABLE 3-1: MAXIMUM DAILY REGIONAL EMISSIONS THRESHOLDS

Pollutant	Regional Construction Threshold	Regional Operational Thresholds
NO_X	100 lbs./day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Pb	3 lbs/day	3 lbs/day

lbs/day = Pounds Per Day

3.3 MODELS EMPLOYED TO ANALYZE AIR QUALITY

3.3.1 CALEEMOD

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

In December 2023, the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of CalEEMod version 2022.1.1.21. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$) and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (36). Accordingly, the latest version of CalEEMod has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendices 3.1 through 3.3.

3.4 CONSTRUCTION EMISSIONS

3.4.1 CONSTRUCTION ACTIVITIES

Construction activities associated with the Project would result in emissions of VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Construction-related emissions are expected from the following construction activities:

- Off-site Improvements
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

OFF-SITE IMPROVEMENTS

In addition, to support the Project development, there will be paving for off-site improvements associated with roadway construction and utility installation which includes widening of Sherman Road from Ethanac Road to the southern end of the Project. It is expected that the off-site construction activities would not take place at one location for the entire duration of construction. Impacts associated with these activities are not expected to exceed the emissions identified for Project-related construction activities since the off-site construction areas would have physical constraints on the amount of daily activity that could occur.

Emissions resulting from this construction activity were modeled in CalEEMod conservatively assuming a total of 0.35 miles of linear construction activities, which would include grading and paving. Off-site construction activities are assumed to take place concurrent with the grading and building construction of Project construction and utilize similar pieces of construction equipment

as shown in Tables 3-3 and 3-4. It is estimated that off-site grading activities will occur over an area of approximately 3 acres.

GRADING ACTIVITIES

Dust is typically a major concern during grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions." Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). CalEEMod was utilized to calculate fugitive dust emissions resulting from this phase of activity. Per client provided data, this analysis assumes that earthwork activities are expected to balance on site and no import or export of soils would be required.

ON-ROAD TRIPS

Construction generates on-road vehicle emissions from vehicle usage for workers, vendors, and haul trucks commuting to and from the site. The number of worker, vendor, and hauling trips are presented below in Table 3-2. Worker trips are based on CalEEMod defaults. It should be noted that for vendor trips, specifically, CalEEMod only assigns vendor trips to the Building Construction phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for vendor trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

TABLE 3-2: CONSTRUCTION TRIP ASSUMPTIONS

Construction Activity	Worker Trips Per Day	Vendor Trips Per Day	Hauling Trips Per Day
Off-site Grading	13	1	0
Off-site Paving	15	0	0
Demolition	15	2	18
Clear Site	3	2	0
Grading – Building Pad (Rough)	15	7	0
Grading – Building Pad (Fine) + Site (Rough)	10	7	0
Building Construction	111	16	0
Paving	15	5	0
Architectural Coating	22	5	0

3.4.2 CONSTRUCTION DURATION

For purposes of analysis, construction of Project is expected to commence in February 2025 and would last through December 2025. Although construction is expected to be completed in late 2025, the building would not be occupied until 2026. The construction schedule utilized in the analysis, shown in Table 3-3, represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time

passes and the analysis year increases due to emission regulations becoming more stringent.[3] The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (1).

TABLE 3-3: CONSTRUCTION DURATION

Construction Activity	Start Date	End Date	Working Days
Off-site Grading	4/24/2025	6/5/2025	31
Off-site Paving	6/6/2025	7/18/2025	31
Demolition	2/3/2025	2/17/2025	11
Clear Site	2/18/2025	3/4/2025	11
Grading – Building Pad (Rough)	3/5/2025	4/23/2025	36
Grading – Building Pad (Fine) + Site (Rough)	4/24/2025	6/12/2025	36
Building Construction	6/13/2025	10/17/2025	91
Paving	10/20/2025	11/24/2025	26
Architectural Coating	11/25/2025	12/31/2025	27

3.4.3 CONSTRUCTION EQUIPMENT

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 3-4 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code. In accordance with the City of Menifee's Industrial Good Neighbor Policies, all equipment utilized for Project construction will meet at least CARB Tier 4 Interim standards.

TABLE 3-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Activity	Equipment	Quantity	Hours Per Day
Off-site Grading	Rubber Tired Dozers	2	8
	Crawler Tractor	3	8
Off-site Paving	Pavers	2	8
	Paving Equipment	2	8
	Roller	2	8
Demolition	Concrete/Industrial Saws	1	8
	Excavators	3	8
	Rubber Tired Dozers	2	8
Clear Site	Rubber Tired Dozers	1	8

[3] As shown in the CalEEMod User's Guide Version 2022.1, Section 4.3 "Off-Road Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

Construction Activity	Equipment	Quantity	Hours Per Day
Grading – Building Pad (Rough)	Rubber Tired Dozers	1	8
	Scrapers	5	8
Grading – Building Pad (Fine) + Site (Rough)	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
Building Construction	Cranes	1	8
	Forklifts	4	8
	Generator Sets	2	8
	Tractors/Loaders/Backhoes	5	8
	Welders	2	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	2	8

3.4.4 CONSTRUCTION EMISSIONS SUMMARY

IMPACTS

The estimated maximum daily construction emissions are summarized in Table 3-5. Detailed construction model outputs are presented in Appendix 3.1. Under the assumed scenarios, emissions resulting from the Project construction will not exceed the thresholds established by the SCAQMD for emissions of any criteria pollutant.

TABLE 3-5: OVERALL CONSTRUCTION EMISSIONS SUMMARY

Year	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
2025	10.48	17.29	35.54	0.17	8.55	2.51
Winter						
2025	8.53	17.88	20.67	0.17	8.53	2.49
Maximum Daily Emissions	**10.48**	**17.88**	**35.54**	**0.17**	**8.55**	**2.51**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod construction-source (unmitigated) emissions are presented in Appendix 3.1.

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the Project would result in emissions of VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Operational emissions are expected from the following primary sources:

- Area Source Emissions;
- Energy Source Emissions;
- Mobile Source Emissions;
- Stationary Source Emissions; and
- On-Site Cargo Handling Equipment Source Emissions.

3.5.1 AREA SOURCE EMISSIONS

ARCHITECTURAL COATINGS

Over a period of time the buildings that are part of this Project would require maintenance and would therefore produce emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings. The emissions associated with architectural coatings were calculated using CalEEMod.

CONSUMER PRODUCTS

Consumer products include, but are not limited to, detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within CalEEMod.

LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. It should be noted that on October 9, 2021, Governor Gavin Newsom signed AB 1346. The bill aims to ban the sale of new gasoline-powered equipment under 25 gross horsepower (known as small off-road engines [SOREs]) by January 1, 2024, which is now in effect. However, for purposes of analysis, the emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod, and do not incorporate the emissions reductions that would be realized from implementation of AB 1346.

3.5.2 ENERGY SOURCE EMISSIONS

COMBUSTION EMISSIONS ASSOCIATED WITH ELECTRICITY

Criteria pollutant emissions are emitted through the generation of electricity. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from off-site generation of electricity are excluded from the evaluation of

significance. Based on information provided by the Project Applicant, the site is also not expected to utilize natural gas for the building envelope, and therefore would not generate any emissions from direct energy consumption.

3.5.3 MOBILE SOURCE EMISSIONS

The Project related operational air quality emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the *Ethanac Business Park Traffic Study Scoping Agreement* were utilized in this analysis (37).

APPROACH FOR ANALYSIS OF THE PROJECT

In order to determine emissions from passenger car vehicles, CalEEMod defaults for trip length and trip purpose were utilized. Default vehicle trip lengths for primary trips are populated using data from the local metropolitan planning organizations/Regional Transportation Planning Agencies (MPO/RTPA). Trip type percentages and trip lengths provided by MPO/RTPAs truncate data at their demonstrative borders. This analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1[4] & LDT2[5]), Medium-Duty-Vehicles (MDV), and Motorcycles (MCY) vehicle types. In order to account for emissions generated by passenger cars, the fleet mix in Table 3-6 was utilized.

TABLE 3-6: PASSENGER CAR FLEET MIX

Land Use	% Vehicle Type				
	LDA	LDT1	LDT2	MDV	MCY
Warehousing	53.90%	4.13%	22.26%	17.20%	2.51%

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, and MDV vehicle types.

To determine emissions from trucks for the proposed industrial uses, the analysis incorporated the SCAQMD recommended truck trip length of 15.3 miles for 2-axle (LHDT1, LHDT2), 14.2 miles for 3-axle (MHDT) trucks, and 39.9 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using traffic trip percentages. The trip length function for the industrial use has been revised to 30.25 miles with an assumption of 100% primary trips. This trip length assumption is higher than the CalEEMod defaults for trucks. The truck fleet mix is estimated by rationing the trip rates for each truck type based on information provided by the SCAQMD recommended truck mix, by axle type. Heavy trucks are broken down by truck type (or axle type) and are categorized as either Light-Heavy-Duty Trucks (LHDT1[6] & LHDT2[7])/2-axle, Medium-Heavy-Duty Trucks

[4] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[5] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

[6] Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.

[7] Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.

(MHDT)/3-axle, and Heavy-Heavy-Duty Trucks (HHDT)/4+-axle. To account for emissions generated by trucks, the fleet mix in Table 3-7 was utilized.

TABLE 3-7: TRUCK FLEET MIX

Land Use	% Vehicle Type			
	LHDT1	LHDT2	MHDT	HHDT
Warehousing	13.45%	3.83%	20.99%	61.73%

Note: Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT1, LHDT2, MHDT, and HHDT) relative to the total number of truck trips.

FUGITIVE DUST RELATED TO VEHICULAR TRAVEL

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of brake and tire wear particulates. The emissions estimate for travel on paved roads was calculated using CalEEMod.

3.5.4 STATIONARY SOURCE EMISSIONS

The proposed Project was conservatively assumed to include installation of a 300-horsepower diesel-powered fire pump. The fire pump was estimated to operate for up to 1 hour per day, 1 day per week for up to 50 hours per year for maintenance and testing purposes. Emissions associated with the stationary diesel-powered emergency fire pump were calculated using CalEEMod.

3.5.5 ON-SITE CARGO HANDLING EQUIPMENT SOURCE EMISSIONS

It is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. Consistent with the City of Menifee's Industrial Good Neighbor Policies (38), the analysis assumes that all on-site cargo handling equipment would be electrically powered.

3.5.6 OPERATIONAL EMISSIONS SUMMARY

As previously stated, CalEEMod utilizes summer and winter EMFAC2021 emission factors in order to derive vehicle emissions associated with Project operational activities, which vary by season. The estimated operational-source emissions are summarized in Table 3-8. Detailed operation model outputs for the Project are presented in Appendix 3.1. As shown in Table 3-8, the Project's daily regional emissions from on-going operations would not exceed the thresholds of significance for emissions of any criteria pollutant.

TABLE 3-8: SUMMARY OF PEAK OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
Mobile Source	1.57	14.44	21.52	0.17	8.39	2.35
Area Source	7.93	0.10	11.51	0.00	0.02	0.02
Emergency Fire Pump	0.98	2.75	2.51	0.00	0.14	0.14
Total Maximum Daily Emissions	**10.48**	**17.29**	**35.54**	**0.17**	**8.55**	**2.51**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Winter						
Mobile Source	1.51	15.13	18.16	0.16	8.39	2.35
Area Source	6.04	0.00	0.00	0.00	0.00	0.00
Emergency Fire Pump	0.98	2.75	2.51	0.00	0.14	0.14
Total Maximum Daily Emissions	**8.53**	**17.88**	**20.67**	**0.17**	**8.53**	**2.49**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod operational-source emissions are presented in Appendix 3.1.

3.6 LOCALIZED SIGNIFICANCE

BACKGROUND ON LST DEVELOPMENT

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology). The SCAQMD has established that localized impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs). Because the Project site is greater than 5 acres in size, air dispersion modeling was performed for this analysis consistent with the LST Methodology in order to determine whether Project emissions have the potential to result in exceedances of the NAAQS/CAAQS at nearby receptors.

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4.[8] LSTs represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air

[8] The purpose of SCAQMD's Environmental Justice program is to ensure that everyone has the right to equal protection from air pollution and fair access to the decision-making process that works to improve the quality of air within their communities. Further, the SCAQMD defines Environmental Justice as "…equitable environmental policymaking and enforcement to protect the health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution."

quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the *LST Methodology* (39).

EMISSIONS CONSIDERED

Based on SCAQMD's *LST Methodology*, emissions for concern during construction activities are on-site NO_X, CO, $PM_{2.5}$, and PM_{10}. The *LST Methodology* clearly states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs (40)." As such, for purposes of the construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered.

DISPERSION MODELING

In order to estimate localized pollutant concentrations resulting from Project construction, the SCAQMD-approved American Meteorological Society/EPA Regulatory Model (AERMOD) dispersion model was utilized. The modeling approach utilized is discussed as follows.

SOURCES

It should be noted that in order to model worst-case conditions, the highest daily peak on-site emissions resulting from overlapping construction activity were modeled.

A ground level release height and a 1 meter (approximately 3.28 feet) initial vertical dimension (sigma z) were utilized for fugitive dust emissions of PM_{10} and $PM_{2.5}$ consistent with SCAQMD's LST guidance.

In order to account for equipment exhaust emissions from NO_2, CO, PM_{10}, and $PM_{2.5}$ a release height of 5.0 meters was utilized consistent with SCAQMD's LST guidance.

METEOROLOGICAL DATA AND MODEL OPTIONS

In order to account for meteorological conditions at the Project site, meteorological data from the SCAQMD's Perris monitoring station was utilized, as this is the nearest station to the Project site for which meteorological data is available. Additionally, a receptor height of 2 meters and regulatory default options were utilized consistent with SCAQMD's LST guidance.

RECEPTORS

As previously stated, LSTs represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable NAAQS and CAAQS at the nearest residence or sensitive receptor. Receptor locations are off-site locations where individuals may be exposed to emissions from Project activities.

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, and individuals with pre-existing respiratory or cardiovascular illness. Structures that house these persons or places where they gather are defined as "sensitive receptors." These structures typically include uses such as residences, hotels, and hospitals where an individual can remain for 24 hours. Consistent with the LST Methodology, the nearest land use to the Project site where an individual could remain for 24 hours has been used to determine construction and operational air quality impacts for emissions of PM_{10} and $PM_{2.5}$, since PM_{10} and $PM_{2.5}$ thresholds are based on a 24-hour averaging time.

Per the *LST Methodology*, commercial and industrial facilities are not included in the definition of sensitive receptor because employees and patrons do not typically remain on-site for a full 24 hours but are typically on-site for 8 hours or less. However, *LST Methodology* explicitly states that "*LSTs based on shorter averaging periods, such as the NO_2 and CO LSTs, could also be applied to receptors such as industrial or commercial facilities since it is reasonable to assume that a worker at these sites could be present for periods of one to eight hours* (40)." Therefore, any adjacent land use where an individual could remain for 1 or 8 hours, that is located at a closer distance to the Project site than the receptor used for PM_{10} and $PM_{2.5}$ analysis, must be considered to determine construction and operational LST air impacts for emissions of NO_2 and CO since these pollutants have an averaging time of 1 and 8 hours.

STUDY AREA RECEPTORS

Receptors in the Project study area are described below and shown on Exhibit 3-A. Localized air quality impacts were evaluated at sensitive receptor land uses nearest the Project site. All distances are measured from the Project site boundary to the outdoor living areas (e.g., backyards) or at the building façade, whichever is closer to the Project site. It should be noted that the following receptors are the closest sensitive receptors to the Project site.

R1: Location R1 represents the existing residence at 27555 Ethanac Rd., approximately 755 feet northeast of the Project site. R1 is placed in the private outdoor living areas (backyard) facing the Project site.

R2: Location R2 represents the existing residence at 27625 Ethanac Rd., approximately 1,014 feet northeast of the Project site. R2 is placed in the private outdoor living areas (backyard) facing the Project site.

R3: Location R3 represents the existing residence at 26400 Dawson Rd., approximately 1,511 feet east of the Project site. R3 is placed in the private outdoor living areas (backyard) facing the Project site.

R4: Location R4 represents the existing residence at 26510 Sherman Rd., approximately 1,255 feet south of the Project site. R4 is placed in the private outdoor living areas (backyard) facing the Project site.

R5: Location R5 represents the existing residence at 26228 Trumble Rd., approximately 581 feet west of the Project site. R5 is placed in the private outdoor living areas (backyard) facing the Project site.

R6: Location R6 represents Summit Equipment Rentals located at 26105 Sherman Rd., approximately 91 feet north of the Project site. R6 is placed at the building façade.

R7: Location R7 represents Romoland Elementary School located at 25890 Antelope Rd., approximately 3,269 feet northeast of the Project site. R7 is placed at the building façade.

EXHIBIT 3-A: RECEPTOR LOCATIONS

CONSTRUCTION-SOURCE LOCALIZED EMISSIONS

Emissions during the peak construction activity will not exceed the SCAQMD's localized significance thresholds at the maximally exposed receptor location, as illustrated in Table 3-9. All other modeled locations in the study area would experience a lesser concentration and consequently a lesser impact. As such, the Project's localized impacts during construction activity would be less than significant. Outputs from the model runs for construction LSTs are provided in Appendix 3.1.

TABLE 3-9 LOCALIZED SIGNIFICANCE SUMMARY PEAK CONSTRUCTION

Peak Construction	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours	24-Hours
Peak Day Localized Emissions	0.11	0.05	3.37E-02	0.41	0.15
Background Concentration [A]	0.9	0.6	0.037		
Total Concentration	**1.01**	**0.65**	**0.07**	**0.41**	**0.15**
SCAQMD Localized Significance Threshold [B]	20	9	0.18	10.4	10.4
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**

[A] Highest concentration from the last three years of available data. Per SCAQMD LST guidance, PM_{10} and $PM_{2.5}$ background concentrations are not considered.

[B] Significance thresholds are based on SCAQMD's Air Quality Significance Thresholds for Ambient Air Quality Standards for Criteria Pollutants (35).

Notes: PM_{10} and $PM_{2.5}$ concentrations are expressed in $\mu g/m^3$. All others are expressed in ppm.

OPERATIONAL-SOURCE LOCALIZED EMISSIONS

The LST analysis generally includes on-site sources (area, energy, mobile, and on-site cargo handling equipment – are previously discussed in Section 3.5 of this report). However, it should be noted that the CalEEMod outputs do not separate on-site and off-site emissions from mobile sources. As such, to establish a maximum potential impact scenario for analytic purposes, the modeled emissions include all on-site Project-related stationary (area) sources and on-site Project-related mobile emissions. In order to account for on-site mobile emissions, a trip length of 0.20 miles was utilized for both trucks and passenger cars.

Emissions during peak operational activity will not exceed the SCAQMD's localized significance thresholds at the maximally impacted receptor location, as illustrated in Table 3-10. All other modeled locations in the study area would experience a lesser concentration and consequently a lesser impact. As such, the Project's localized impacts during operational activity would be less than significant. Outputs from the model runs for operational LSTs are provided in Appendix 3.2.

TABLE 3-10: LOCALIZED SIGNIFICANCE SUMMARY PEAK OPERATIONS

Peak Construction	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours	24-Hours
Peak Day Localized Emissions	1.19E-02	5.06E-03	1.99E-03	0.01	0.01
Background Concentration [A]	0.9	0.6	0.037		
Total Concentration	**0.91**	**0.61**	**0.04**	**0.01**	**0.01**
SCAQMD Localized Significance Threshold [B]	20	9	0.18	2.5	2.5
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**

[A] Highest concentration from the last three years of available data. Per SCAQMD LST guidance, PM_{10} and $PM_{2.5}$ background concentrations are not considered.

[B] Significance thresholds are based on SCAQMD's Air Quality Significance Thresholds for Ambient Air Quality Standards for Criteria Pollutants (35)..

Notes: PM_{10} and $PM_{2.5}$ concentrations are expressed in $\mu g/m^3$. All others are expressed in ppm.

3.7 CO "HOT SPOT" ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or "hot spots." Further, detailed modeling of Project-specific CO "hot spots" is not needed to reach this conclusion. An adverse CO concentration, known as a "hot spot," would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur.

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment. To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards, as shown in Table 3-11.

TABLE 3-11: CO MODEL RESULTS

Intersection Location	CO Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire Boulevard/Veteran Avenue	4.6	3.5	3.7
Sunset Boulevard/Highland Avenue	4	4.5	3.5
La Cienega Boulevard/Century Boulevard	3.7	3.1	5.2
Long Beach Boulevard/Imperial Highway	3	3.1	8.4

Source: 2003 AQMP, Appendix V: Modeling and Attainment Demonstrations
Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (*1992 CO Plan*), peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 8.4 ppm 8-hr. CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 7.7 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (41). In contrast, an adverse CO concentration, known as a "hot spot," would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur.

The ambient 1-hr. and 8-hr. CO concentration within the Project study area is estimated to be 0.9 ppm and 0.6 ppm, respectively (data from the Lake Elsinore monitoring station for 2022). Therefore, even if the traffic volumes for the proposed Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO "hot spot" at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour (vph)—or 24,000 vph where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (42). Traffic volumes generating the CO concentrations for the "hot spot" analysis is shown in Table 3-12. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vph and AM/PM traffic volumes of 8,062 vph and 7,719 vph respectively (41). The *2003 AQMP* estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm)[9].

TABLE 3-12: TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire Boulevard/Veteran Avenue	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset Boulevard/Highland Avenue	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega Boulevard/Century Boulevard	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674

[9] Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm)

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Long Beach Boulevard/Imperial Highway	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: 2003 AQMP

As summarized in Table 3-13 below, the intersection of the I-215 Southbound Ramps and Ethanac Road would have the highest AM/PM traffic volumes of 3,457 vph and 4,159 vph respectively. As such, Total traffic volumes at the intersections considered are less than the traffic volumes identified in the *2003 AQMP*. As such, the Project considered herein along with background and cumulative development would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study or based on representative BAAQMD CO threshold considerations. Therefore, CO "hot spots" are not an environmental impact of concern for the Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

TABLE 3-13: PEAK HOUR TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
I-215 SB Ramps & Ethanac Rd.	0/0	1159/1056	1303/1744	995/1359	3457/4159
I-215 NB Ramps & Ethanac Rd.	934/831	0/0	1316/1499	609/1251	2859/3581
Encanto Dr. & Ethanac Rd.	176/183	0/0	1127/993	433/1068	1736/2244
Sherman Rd. & Ethanac Rd.	173/718	95/57	1067/986	380/569	1715/2330

Source: *Ethanac Business Park Traffic Study Scoping Agreement* (Urban Crossroads, Inc., 2024)

3.8 AQMP

The Project site is located within the SCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the SCAG, county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Currently, these state and federal air quality standards are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMPs to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions,

accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

In December 2022, the SCAQMD released the *Final 2022 AQMP* (*2022 AQMP*). The *2022 AQMP* continues to evaluate current integrated strategies and control measures to meet the CAAQS, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (43). Similar to the 2016 AQMP, the *2022 AQMP* incorporates scientific and technological information and planning assumptions, including the *2020-2045 RTP/SCS*, a planning document that supports the integration of land use and transportation to help the region meet the federal CAA requirements (44). The Project's consistency with the AQMP will be determined using the *2022 AQMP* as discussed below.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the *1993 CEQA Handbook* (45). These indicators are discussed below:

3.8.1 CONSISTENCY CRITERION NO. 1

The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

The violations that Consistency Criterion No. 1 refer to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if regional or localized significance thresholds were exceeded.

Construction Impacts – Consistency Criterion 1

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if localized or regional significance thresholds were exceeded. As evaluated, the Project's localized and regional construction-source emissions would not exceed applicable regional significance threshold and LST thresholds. As such, a less than significant impact is expected.

Operational Impacts – Consistency Criterion 1

As evaluated, the Project's localized and regional operation-source emissions would not exceed applicable regional significance threshold and LST thresholds. As such, a less than significant impact is expected.

On the basis of the preceding discussion, the Project is determined to be consistent with the first criterion.

3.8.2 CONSISTENCY CRITERION NO. 2

The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

The AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the SCAG, which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in City of Menifee General Plan is considered to be consistent with the AQMP***.***

Construction Impacts – Consistency Criterion 2

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities. As such, when considering that no emissions thresholds will be exceeded, a less than significant impact would result.

Operational Impacts – Consistency Criterion 2

The City's General Plan Land Use Map and Zoning Map show part of the Project Site (APNs 331-110-038 and 331-110-039) is Menifee North Specific Plan, and part of the Project Site (APN 331-110-023) is Heavy Industrial (HI). Per the Menifee North Specific Plan, the Project site is designated for Industrial uses. This designation is intended to support the commercial uses in the region and to blend in with the adjacent industrial uses (46). The HI land use designation allows for more intense industrial activities, such as manufacturing uses, that can generate significant impacts such as excessive noise, dust, and other nuisances (47).

The Project Applicant proposes a General Plan Amendment to change APN 331-110-023 from Heavy Industrial to Specific Plan. The Project will also include a Zone Change Amendment to change APN 331-110-023 from Heavy Industrial to Menifee North Specific Plan. Additionally, the Project will propose a Specific Plan Amendment to change the boundary of the Menifee North Specific Plan by adding APN 331-110-023 and designating it as Planning Area 2 – Industrial. It should be noted that the proposed General Plan Amendment to change a portion of the Project site from Heavy Industrial to Menifee North Specific Plan will not result in an intensification of land uses on the site. Both designations authorize the same types of uses, at similar intensities.

The Project includes the development of a 264,710 square foot warehouse building which includes 10,000 square feet of office support space on an 11.47- acre site. Although a General Plan, Zoning and Specific Plan Amendments are proposed, the Project will not result in an intensification of land uses on the site. Additionally, the Project's construction and operational emissions are not expected to exceed regional or localized applicable thresholds established by the SCAQMD. As such, the proposed Project would not conflict with the goals and objectives of the AQMP.

On the basis of the preceding discussion, the Project is determined to be consistent with the second criterion.

AQMP CONSISTENCY CONCLUSION

The Project would not have the potential to result in or cause NAAQS or CAAQS violations. The Project Applicant proposes a General Plan Amendment to change APN 331-110-023 from Heavy Industrial to Specific Plan, which will not result in an intensification of land uses on the site. The Project will also include a Zone Change Amendment to change APN 331-110-023 from Heavy Industrial to Menifee North Specific Plan. Additionally, the Project will propose a Specific Plan Amendment to change the boundary of the Menifee North Specific Plan by adding APN 331-110-023 and designating it as Planning Area 2 – Industrial. The Project construction and operational emissions are not expected to exceed the applicable thresholds established by the SCAQMD. Therefore, the Project is considered to not have the potential to conflict with the AQMP and a less than significant impact would occur with respect to this threshold.

3.9 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Results of the LST analysis indicate that the Project would not exceed the SCAQMD localized significance thresholds during construction. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during Project construction.

Additionally, the Project would not exceed the SCAQMD localized significance thresholds during operational activity. Further Project traffic would not create or result in a CO "hotspot." Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations as the result of Project operations.

3.9.1 FRIANT RANCH CASE

In December 2018, in the case of *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, the California Supreme Court held that an Environmental Impact Report's (EIR) air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts, or meaningfully explain why that analysis cannot be provided.

Most local agencies, including the City of Menifee, lack the data to do their own assessment of potential health impacts from criteria air pollutant emissions, as would be required to establish customized, locally-specific thresholds of significance based on potential health impacts from an individual development project. The use of national or "generic" data to fill the gap of missing local data would not yield accurate results because such data does not capture local air patterns, local background conditions, or local population characteristics, all of which play a role in how a population experiences air pollution. Because it is impracticable to accurately isolate the exact cause of a human disease (for example, the role a particular air pollutant plays compared to the role of other allergens and genetics in causing asthma), existing scientific tools cannot accurately estimate health impacts of the Project's air emissions without undue speculation. Instead, readers are directed to the Project's air quality impact analysis above, which provides extensive information concerning the quantifiable and non-quantifiable health risks related to the Project's construction and long-term operation.

Notwithstanding, this AQIA does evaluate the proposed Project's localized impact to air quality for emissions of CO, NO_X, PM_{10}, and $PM_{2.5}$ by comparing the proposed Project's on-site emissions to the SCAQMD's applicable LST thresholds. The LST analysis above determined that the Project would not result in emissions exceeding SCAQMD's LSTs. Therefore, the proposed Project would not be expected to exceed the most stringent applicable federal or state ambient air quality standards for emissions of CO, NO_X, PM_{10}, and $PM_{2.5}$.

As the Project's emissions would comply with federal, state, and local air quality standards, the proposed Project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level and would not provide a reliable indicator of health effects if modeled.

3.10 ODORS

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with current solid waste regulations. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors and other emissions (such as those leading to odors) associated with construction and operations activities of the proposed Project would be less than significant and no mitigation is required (48).

3.11 CUMULATIVE IMPACTS

As previously shown in Table 2-3, the CAAQS designate the Project site as nonattainment for O_3 PM_{10}, and $PM_{2.5}$ while the NAAQS designates the Project site as nonattainment for O_3 and $PM_{2.5}$.

The SCAQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (49). In this report the SCAQMD clearly states (Page D-3):

> *"…the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*
>
> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which SCAB is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable.

CONSTRUCTION IMPACTS

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project construction-source air pollutant emissions would not result in exceedances of regional thresholds. Therefore, proposed Project construction-source emissions would be considered less than significant on a Project-specific and cumulative basis.

OPERATIONAL IMPACTS

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project operation-source air pollutant emissions would not result in exceedances

of regional thresholds. Therefore, proposed Project operation-source emissions would be considered less than significant on a project-specific and cumulative basis.

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5 CERTIFICATIONS

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Ethanac Business Park. The information contained in this air quality impact assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May 2010

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University of California, Irvine • June 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Professionals
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PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – CARB • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
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APPENDIX 2.1:

STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS

Appendix C
Maps and Tables of Area Designations for State and National Ambient Air Quality Standards

Appendix C
Maps and Tables of Area Designations for State and National Ambient Air Quality Standards

This attachment fulfills the requirement of Health and Safety Code section 40718 for CARB to publish maps that identify areas where one or more violations of any State ambient air quality standard (State standard) or national ambient air quality standard (national standard) have been measured. The national standards are those promulgated under section 109 of the federal Clean Air Act (42 U.S.C. 7409).

This attachment is divided into three parts. The first part comprises a table showing the levels, averaging times, and measurement methods for each of the State and national standards. This is followed by a section containing maps and tables showing the area designations for each pollutant for which there is a State standard in the California Code of Regulations, title 17, section 70200. The last section contains maps and tables showing the most current area designations for the national standards.

(Updated 5/4/16)

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/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		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/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m³		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	**No National Standards**		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

See footnotes on next page …

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 CARB 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 CARB 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 CARB 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.

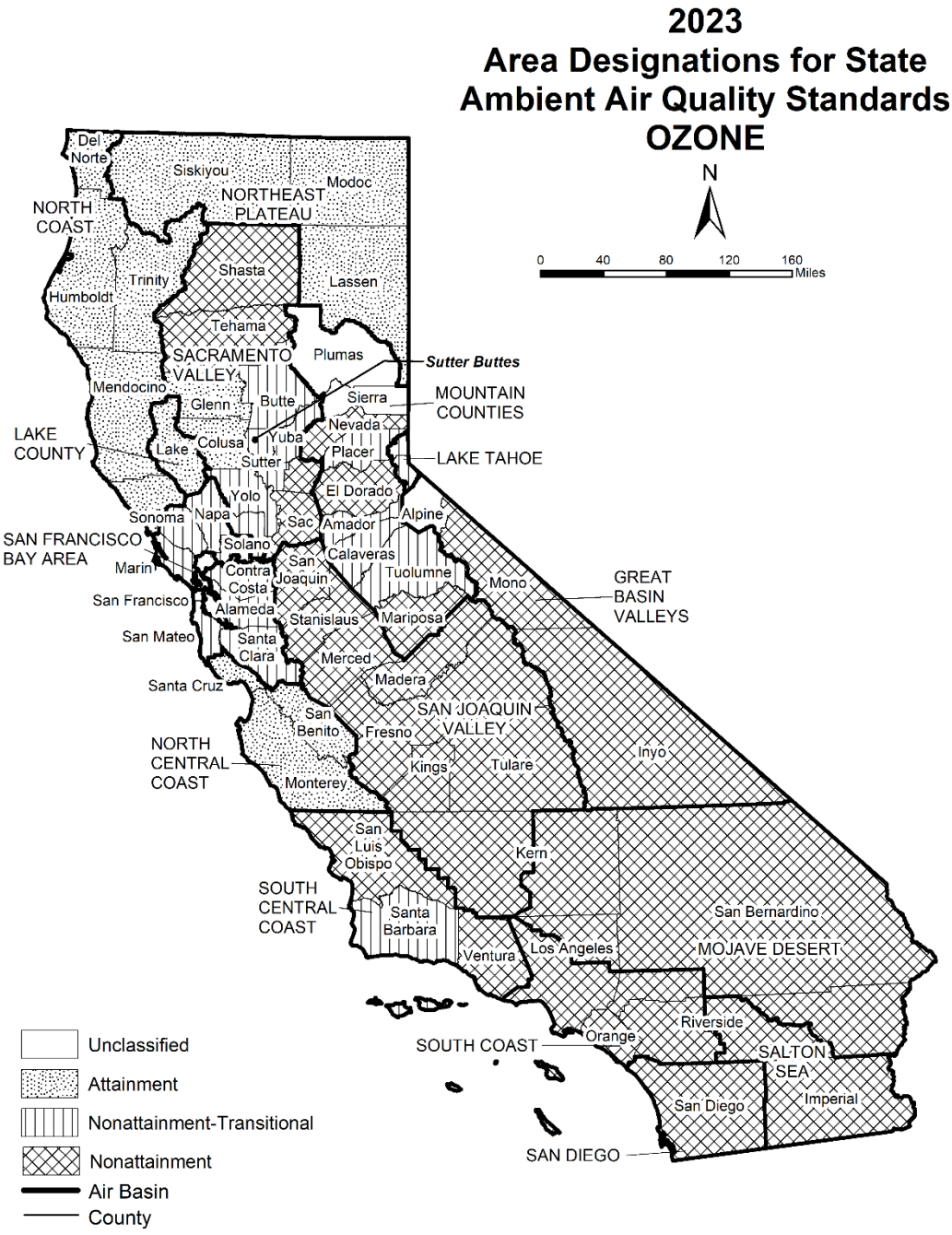
Area Designations for the State Ambient Air Quality Standards

The following maps and tables show the area designations for each pollutant with a State standard set forth in the California Code of Regulations, title 17, section 60200. Each area is identified as attainment, nonattainment, nonattainment-transitional, or unclassified for each pollutant, as shown below:

Designation	Abbreviation
Attainment	A
Nonattainment	N
Nonattainment-Transitional	NA-T
Unclassified	U

In general, CARB designates areas by air basin for pollutants with a regional impact and by county for pollutants with a more local impact. However, when there are areas within an air basin or county with distinctly different air quality deriving from sources and conditions not affecting the entire air basin or county, CARB may designate a smaller area. Generally, when boundaries of the designated area differ from the air basin or county boundaries, the description of the specific area is referenced at the bottom of the summary table.

Figure 1



Last Updated: November 2023
Air Quality Planning and Science Division, CARB

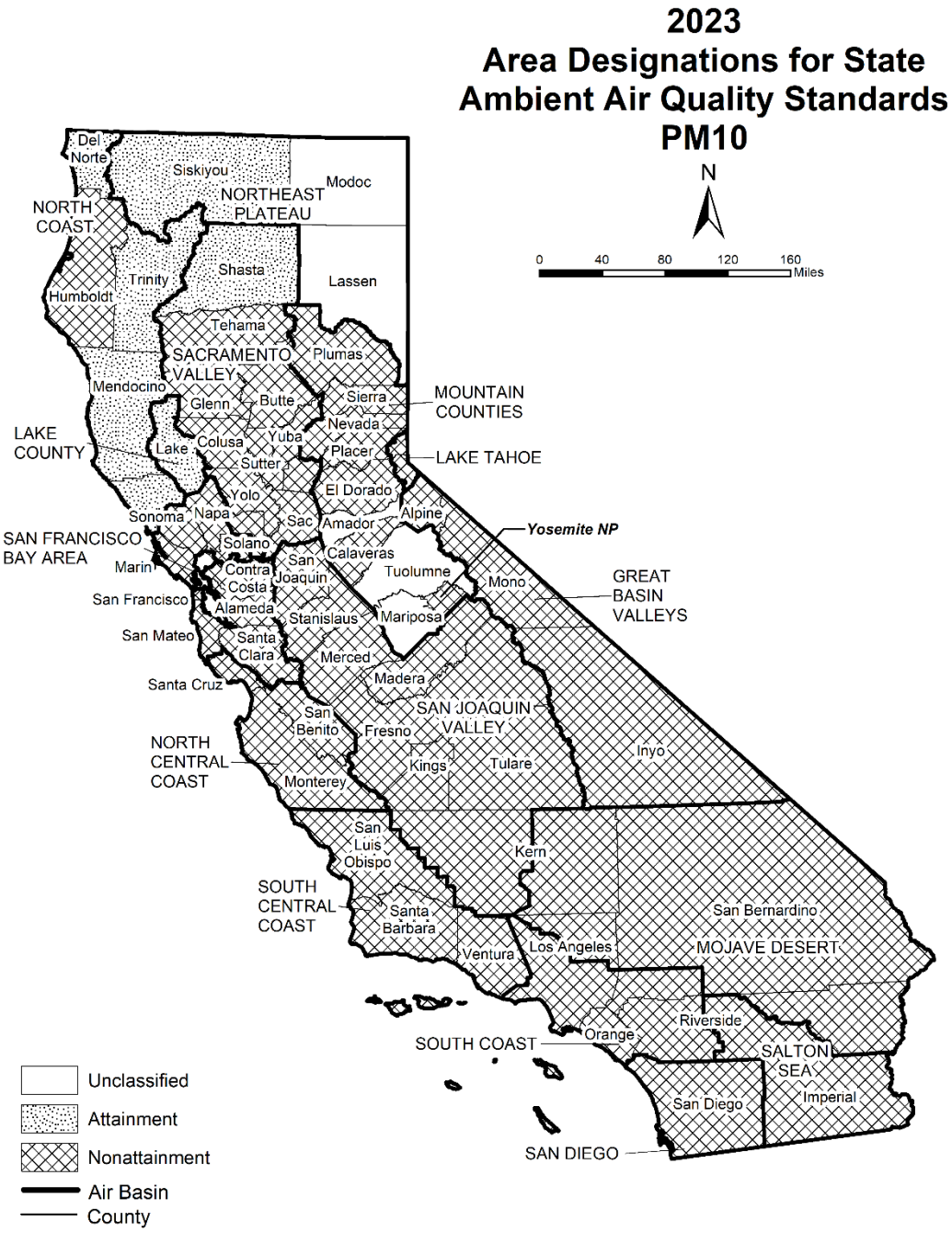
Table 1
California Ambient Air Quality Standards Area Designations for Ozone[1]

Area	N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN				
Alpine County			U	
Inyo County	N			
Mono County	N			
LAKE COUNTY AIR BASIN				A
LAKE TAHOE AIR BASIN		NA-T		
MOJAVE DESERT AIR BASIN	N			
MOUNTAIN COUNTIES AIR BASIN				
Amador County		NA-T		
Calaveras County		NA-T		
El Dorado County (portion)	N			
Mariposa County	N			
Nevada County	N			
Placer County (portion)		NA-T		
Plumas County			U	
Sierra County			U	
Tuolumne County		NA-T		
NORTH CENTRAL COAST AIR BASIN				A
NORTH COAST AIR BASIN				A
NORTHEAST PLATEAU AIR BASIN				A

Area	N	NA-T	U	A
SACRAMENTO VALLEY AIR BASIN				
Butte County		NA-T		
Colusa and Glenn Counties				A
Shasta County	N			
Sutter/Yuba Counties				
Sutter Buttes		NA-T		
Remainder of Sutter County		NA-T		
Yuba County		NA-T		
Yolo/Solano Counties		NA-T		
Remainder of Air Basin	N			
SALTON SEA AIR BASIN	N			
SAN DIEGO AIR BASIN	N			
SAN FRANCISCO BAY AREA AIR BASIN		NA-T		
SAN JOAQUIN VALLEY AIR BASIN	N			
SOUTH CENTRAL COAST AIR BASIN				
San Luis Obispo County	N			
Santa Barbara County		NA-T		
Ventura County	N			
SOUTH COAST AIR BASIN	N			

[1] AB 3048 (Olberg) and AB 2525 (Miller) signed into law in 1996, made changes to Health and Safety Code, section 40925.5. One of the changes allows nonattainment districts to become nonattainment-transitional for ozone by operation of law.

Figure 2



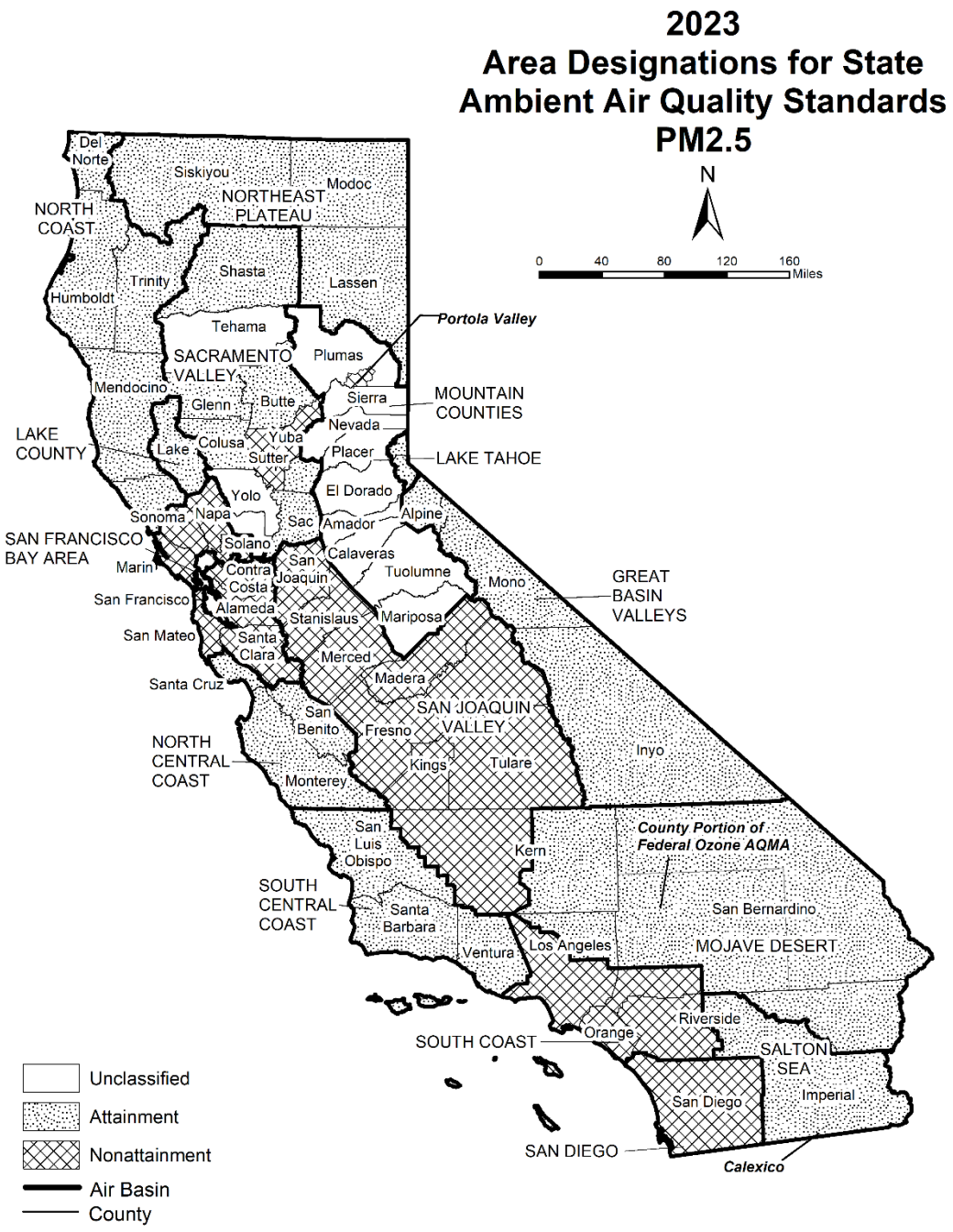
Last Updated: November 2023
Air Quality Planning and Science Division, CARB

Table 2
California Ambient Air Quality Standards Area Designations for Suspended Particulate Matter (PM_{10})

Area	N	U	A
GREAT BASIN VALLEYS AIR BASIN	N		
LAKE COUNTY AIR BASIN			A
LAKE TAHOE AIR BASIN	N		
MOJAVE DESERT AIR BASIN	N		
MOUNTAIN COUNTIES AIR BASIN			
Amador County		U	
Calaveras County	N		
El Dorado County (portion)	N		
Mariposa County			
- Yosemite National Park	N		
- Remainder of County		U	
Nevada County	N		
Placer County (portion)	N		
Plumas County	N		
Sierra County	N		
Tuolumne County		U	

Area	N	U	A
NORTH CENTRAL COAST AIR BASIN	N		
NORTH COAST AIR BASIN			
Del Norte, Mendocino, Sonoma (portion) and Trinity Counties			A
Remainder of Air Basin	N		
NORTHEAST PLATEAU AIR BASIN			
Siskiyou County			A
Remainder of Air Basin		U	
SACRAMENTO VALLEY AIR BASIN			
Shasta County			A
Remainder of Air Basin	N		
SALTON SEA AIR BASIN	N		
SAN DIEGO AIR BASIN	N		
SAN FRANCISCO BAY AREA AIR BASIN	N		
SAN JOAQUIN VALLEY AIR BASIN	N		
SOUTH CENTRAL COAST AIR BASIN	N		
SOUTH COAST AIR BASIN	N		

Figure 3



Last Updated: November 2023
Air Quality Planning and Science Division, CARB

Table 3
California Ambient Air Quality Standards Area Designations for Fine Particulate Matter ($PM_{2.5}$)

Area	N	U	A
GREAT BASIN VALLEYS AIR BASIN			A
LAKE COUNTY AIR BASIN			A
LAKE TAHOE AIR BASIN			A
MOJAVE DESERT AIR BASIN			A
MOUNTAIN COUNTIES AIR BASIN			
Plumas County			
- Portola Valley[1]	N		
- Remainder Plumas County		U	
Remainder of Air Basin		U	
NORTH CENTRAL COAST AIR BASIN			A
NORTH COAST AIR BASIN			A
NORTHEAST PLATEAU AIR BASIN			A
SACRAMENTO VALLEY AIR BASIN			
Butte County			A
Colusa County			A
Glenn County			A
Placer County (portion)			A
Sacramento County			A
Shasta County			A
Sutter and Yuba Counties	N		
Remainder of Air Basin		U	

Area	N	U	A
SALTON SEA AIR BASIN			
Imperial County			
- City of Calexico[2]	N		
Remainder of Air Basin			A
SAN DIEGO AIR BASIN	N		
SAN FRANCISCO BAY AREA AIR BASIN	N		
SAN JOAQUIN VALLEY AIR BASIN	N		
SOUTH CENTRAL COAST AIR BASIN			A
SOUTH COAST AIR BASIN	N		

[1] California Code of Regulations, title 17, section 60200(c)

[2] California Code of Regulations, title 17, section 60200(a)

Figure 4

Last Updated: November 2023
Air Quality Planning and Science Division, CARB

Table 4
California Ambient Air Quality Standards Area Designations for Carbon Monoxide*

Area	N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN				
Alpine County			U	
Inyo County				A
Mono County				A
LAKE COUNTY AIR BASIN				A
LAKE TAHOE AIR BASIN				A
MOJAVE DESERT AIR BASIN				
Kern County (portion)			U	
Los Angeles County (portion)				A
Riverside County (portion)			U	
San Bernardino County (portion)				A
MOUNTAIN COUNTIES AIR BASIN				
Amador County			U	
Calaveras County			U	
El Dorado County (portion)			U	
Mariposa County			U	
Nevada County			U	
Placer County (portion)			U	
Plumas County				A
Sierra County			U	
Tuolumne County				A
NORTH CENTRAL COAST AIR BASIN				
Monterey County				A
San Benito County			U	
Santa Cruz County			U	
NORTH COAST AIR BASIN				
Del Norte County			U	
Humboldt County				A
Mendocino County				A
Sonoma County (portion)			U	
Trinity County			U	
NORTHEAST PLATEAU AIR BASIN			U	

Area	N	NA-T	U	A
SACRAMENTO VALLEY AIR BASIN				
Butte County				A
Colusa County			U	
Glenn County			U	
Placer County (portion)				A
Sacramento County				A
Shasta County			U	
Solano County (portion)				A
Sutter County				A
Tehama County			U	
Yolo County				A
Yuba County			U	
SALTON SEA AIR BASIN				A
SAN DIEGO AIR BASIN				A
SAN FRANCISCO BAY AREA AIR BASIN				A
SAN JOAQUIN VALLEY AIR BASIN				
Fresno County				A
Kern County (portion)				A
Kings County			U	
Madera County			U	
Merced County			U	
San Joaquin County				A
Stanislaus County				A
Tulare County				A
SOUTH CENTRAL COAST AIR BASIN				A
SOUTH COAST AIR BASIN				A

* The area designated for carbon monoxide is a county or portion of a county

Figure 5

Last Updated: November 2023
Air Quality Planning and Science Division, CARB

Table 5
California Ambient Air Quality Standards Area Designations for Nitrogen Dioxide

Area	N	U	A
GREAT BASIN VALLEYS AIR BASIN			A
LAKE COUNTY AIR BASIN			A
LAKE TAHOE AIR BASIN			A
MOJAVE DESERT AIR BASIN			A
MOUNTAIN COUNTIES AIR BASIN			A
NORTH CENTRAL COAST AIR BASIN			A
NORTH COAST AIR BASIN			A
NORTHEAST PLATEAU AIR BASIN			A
SACRAMENTO VALLEY AIR BASIN			A
SALTON SEA AIR BASIN			A
SAN DIEGO AIR BASIN			A
SAN FRANCISCO BAY AREA AIR BASIN			A
SAN JOAQUIN VALLEY AIR BASIN			A
SOUTH CENTRAL COAST AIR BASIN			A
SOUTH COAST AIR BASIN			
CA 60 Near-road Portion of San Bernardino, Riverside, and Los Angeles Counties			A
Remainder of Air Basin			A

Figure 6

Last Updated: November 2023
Air Quality Planning and Science Division, CARB

Table 6
California Ambient Air Quality Standards Area Designations for Sulfur Dioxide*

Area	N	A
GREAT BASIN VALLEYS AIR BASIN		A
LAKE COUNTY AIR BASIN		A
LAKE TAHOE AIR BASIN		A
MOJAVE DESERT AIR BASIN		A
MOUNTAIN COUNTIES AIR BASIN		A
NORTH CENTRAL COAST AIR BASIN		A
NORTH COAST AIR BASIN		A
NORTHEAST PLATEAU AIR BASIN		A

Area	N	A
SACRAMENTO VALLEY AIR BASIN		A
SALTON SEA AIR BASIN		A
SAN DIEGO AIR BASIN		A
SAN FRANCISCO BAY AREA AIR BASIN		A
SAN JOAQUIN VALLEY AIR BASIN		A
SOUTH CENTRAL COAST AIR BASIN		A
SOUTH COAST AIR BASIN		A

* The area designated for sulfur dioxide is a county or portion of a county. Since all areas in the State are in attainment for this standard, air basins are indicated here for simplicity.

Figure 7

2023
Area Designations for State
Ambient Air Quality Standards
SULFATES
N
0 40 80 120 160
Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Colusa
Yuba
Lake
Placer
LAKE TAHOE
Sutter
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
SAN JOAQUIN VALLEY
San Benito
Fresno
Inyo
NORTH CENTRAL COAST
Kings
Tulare
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
Riverside
Orange
SOUTH COAST
SALTON SEA
San Diego
Imperial
SAN DIEGO
Attainment
Air Basin
County
Last Updated: November 2023
Air Quality Planning and Science Division, CARB

Table 7
California Ambient Air Quality Standards Area Designations for Sulfates

Area	N	U	A
GREAT BASIN VALLEYS AIR BASIN			A
LAKE COUNTY AIR BASIN			A
LAKE TAHOE AIR BASIN			A
MOJAVE DESERT AIR BASIN			A
MOUNTAIN COUNTIES AIR BASIN			A
NORTH CENTRAL COAST AIR BASIN			A
NORTH COAST AIR BASIN			A
NORTHEAST PLATEAU AIR BASIN			A

Area	N	U	A
SACRAMENTO VALLEY AIR BASIN			A
SALTON SEA AIR BASIN			A
SAN DIEGO AIR BASIN			A
SAN FRANCISCO BAY AREA AIR BASIN			A
SAN JOAQUIN VALLEY AIR BASIN			A
SOUTH CENTRAL COAST AIR BASIN			A
SOUTH COAST AIR BASIN			A

Figure 8

Last Updated: November 2023
Air Quality Planning and Science Division, CARB

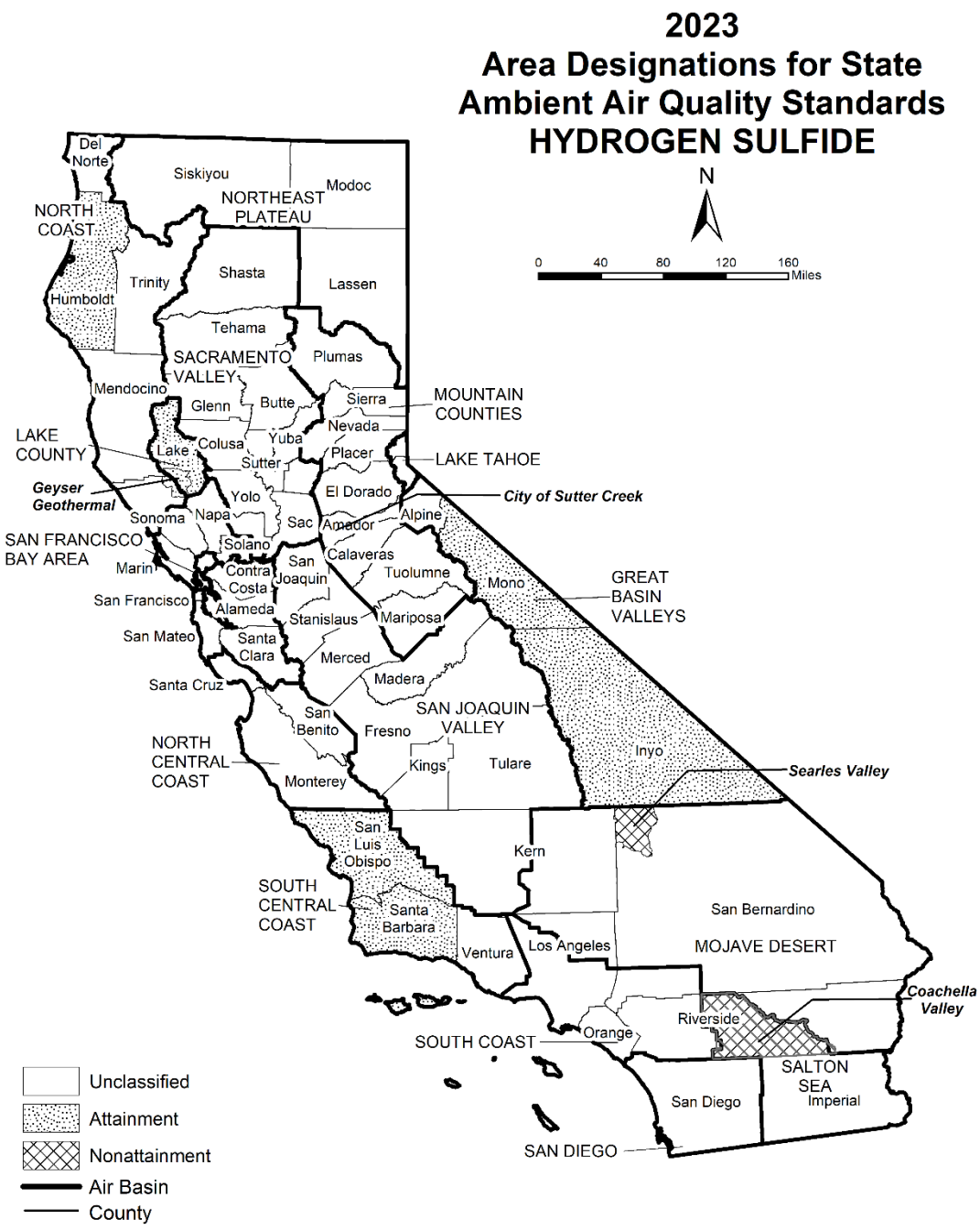
Table 8
California Ambient Air Quality Standards Area Designations for Lead (particulate)*

Area	N	U	A
GREAT BASIN VALLEYS AIR BASIN			A
LAKE COUNTY AIR BASIN			A
LAKE TAHOE AIR BASIN			A
MOJAVE DESERT AIR BASIN			A
MOUNTAIN COUNTIES AIR BASIN			A
NORTH CENTRAL COAST AIR BASIN			A
NORTH COAST AIR BASIN			A
NORTHEAST PLATEAU AIR BASIN			A
SACRAMENTO VALLEY AIR BASIN			A

Area	N	U	A
SALTON SEA AIR BASIN			A
SAN DIEGO AIR BASIN			A
SAN FRANCISCO BAY AREA AIR BASIN			A
SAN JOAQUIN VALLEY AIR BASIN			A
SOUTH CENTRAL COAST AIR BASIN			A
SOUTH COAST AIR BASIN			A

* The area designated for lead is a county or portion of a county. Since all areas in the State are in attainment for this standard, air basins are indicated here for simplicity.

Figure 9



Last Updated: November 2023
Air Quality Planning and Science Division, CARB

Table 9
California Ambient Air Quality Standards Area Designations for Hydrogen Sulfide*

Area	N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN				
Alpine County			U	
Inyo County				A
Mono County				A
LAKE COUNTY AIR BASIN				A
LAKE TAHOE AIR BASIN			U	
MOJAVE DESERT AIR BASIN				
Kern County (portion)			U	
Los Angeles County (portion)			U	
Riverside County (portion)			U	
San Bernardino County (portion)				
- Searles Valley Planning Area[1]	N			
- Remainder of County			U	
MOUNTAIN COUNTIES AIR BASIN				
Amador County				
- City of Sutter Creek	N			
- Remainder of County			U	
Calaveras County			U	
El Dorado County (portion)			U	
Mariposa County			U	
Nevada County			U	
Placer County (portion)			U	
Plumas County			U	
Sierra County			U	
Tuolumne County			U	

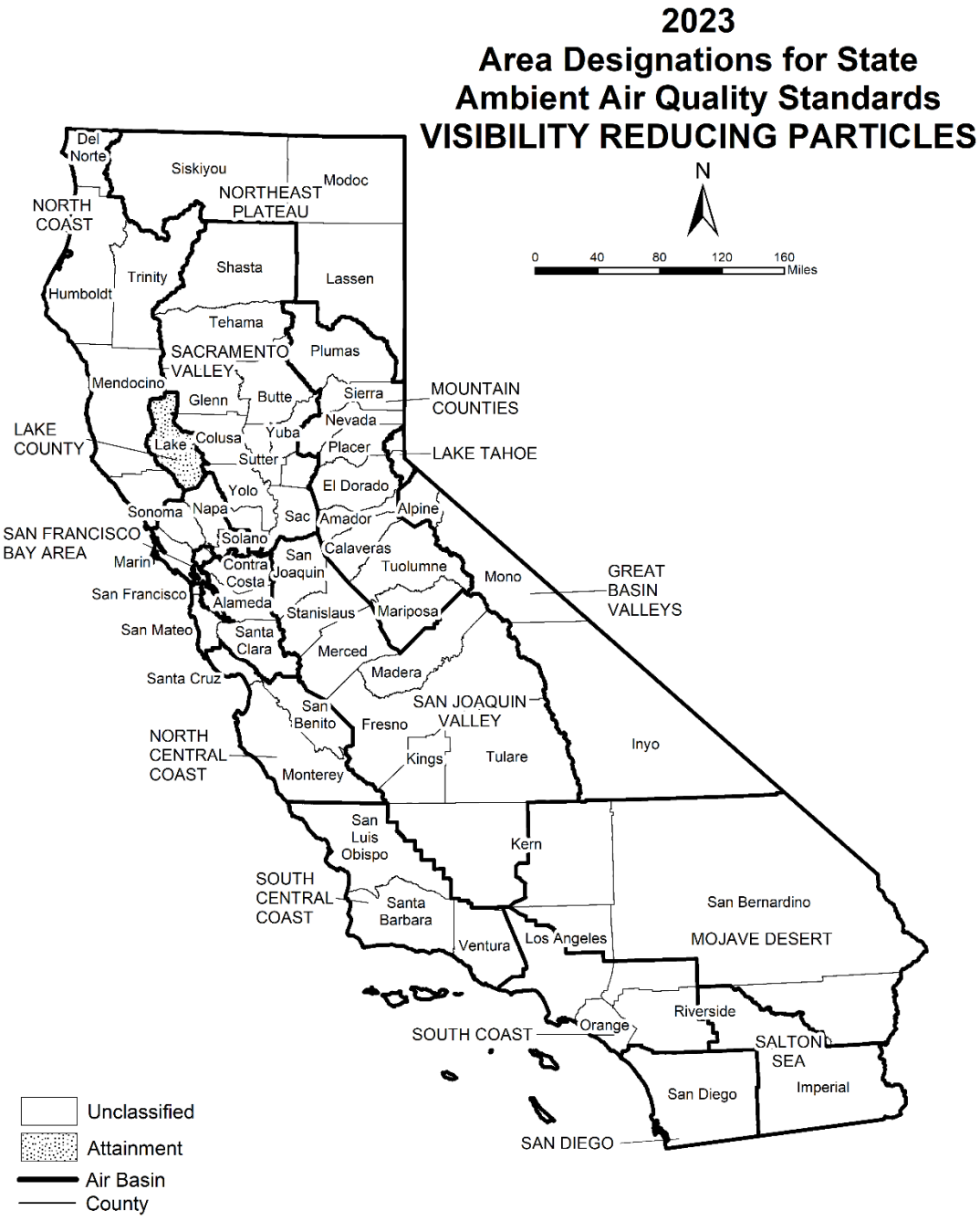
Area	N	NA-T	U	A
NORTH CENTRAL COAST AIR BASIN			U	
NORTH COAST AIR BASIN				
Del Norte County			U	
Humboldt County				A
Mendocino County			U	
Sonoma County (portion)				
- Geyser Geothermal Area[2]				A
- Remainder of County			U	
Trinity County			U	
NORTHEAST PLATEAU AIR BASIN			U	
SACRAMENTO VALLEY AIR BASIN			U	
SALTON SEA AIR BASIN				
Riverside County (portion)	N			
Imperial County			U	
SAN DIEGO AIR BASIN			U	
SAN FRANCISCO BAY AREA AIR BASIN			U	
SAN JOAQUIN VALLEY AIR BASIN			U	
SOUTH CENTRAL COAST AIR BASIN				
San Luis Obispo County				A
Santa Barbara County				A
Ventura County			U	
SOUTH COAST AIR BASIN			U	

* The area designated for hydrogen sulfide is a county or portion of a county

[1] 52 Federal Register 29384 (August 7, 1987)

[2] California Code of Regulations, title 17, section 60200(d)

Figure 10



Last Updated: November 2023
Air Quality Planning and Science Division, CARB

Table 10
California Ambient Air Quality Standards Area Designations for Visibility Reducing Particles

Area	N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN			U	
LAKE COUNTY AIR BASIN				A
LAKE TAHOE AIR BASIN			U	
MOJAVE DESERT AIR BASIN			U	
MOUNTAIN COUNTIES AIR BASIN			U	
NORTH CENTRAL COAST AIR BASIN			U	
NORTH COAST AIR BASIN			U	
NORTHEAST PLATEAU AIR BASIN			U	

Area	N	NA-T	U	A
SACRAMENTO VALLEY AIR BASIN			U	
SALTON SEA AIR BASIN			U	
SAN DIEGO AIR BASIN			U	
SAN FRANCISCO BAY AREA AIR BASIN			U	
SAN JOAQUIN VALLEY AIR BASIN			U	
SOUTH CENTRAL COAST AIR BASIN			U	
SOUTH COAST AIR BASIN			U	

Area Designations for the National Ambient Air Quality Standards

The following maps and tables show the area designations for each pollutant with a national ambient air quality standard. Additional information about the federal area designations is available on the U.S. EPA website:

https://www.epa.gov/green-book

Over the last several years, U.S. EPA has been reviewing the levels of the various national standards. The agency has already promulgated new standard levels for some pollutants and is considering revising the levels for others. Information about the status of these reviews is available on the U.S. EPA website:

https://www.epa.gov/criteria-air-pollutants

Designation Categories

Suspended Particulate Matter (PM_{10}). The U.S. EPA uses three categories to designate areas with respect to PM_{10}:

- Attainment (A)
- Nonattainment (N)
- Unclassifiable (U)

Ozone, Fine Suspended Particulate Matter ($PM_{2.5}$), Carbon Monoxide (CO), and Nitrogen Dioxide (NO_2). The U.S. EPA uses two categories to designate areas with respect to these standards:

- Nonattainment (N)
- Unclassifiable/Attainment (U/A)

The national 1-hour ozone standard was revoked effective June 15, 2005, and the area designations map reflects the 2015 national 8-hour ozone standard of 0.070 ppm. Area designations were finalized on August 3, 2018.

On December 14, 2012, the U.S. EPA established a new national annual primary $PM_{2.5}$ standard of 12.0 µg/m^3. Area designations were finalized in December 2014. The current designation map reflects the most recently revised (2012) annual average standard of 12.0 µg/m^3 as well as the 24-hour standard of 35 µg/m^3, revised in 2006.

On January 22, 2010, the U.S. EPA established a new national 1-hour NO_2 standard of 100 parts per billion (ppb) and retained the annual average standard of 53 ppb. Designations for the primary NO_2 standard became effective on February 29, 2012. All areas of California meet this standard.

Sulfur Dioxide (SO_2). The U.S. EPA uses three categories to designate areas with respect to the 24-hour and annual average sulfur dioxide standards. These designation categories are:

- Nonattainment (N),
- Unclassifiable (U), and
- Unclassifiable/Attainment (U/A).

On June 2, 2010, the U.S. EPA established a new primary 1-hour SO_2 standard of 75 parts per billion (ppb). At the same time, U.S. EPA revoked the 24-hour and annual average standards. Area designations for the 1-hour SO_2 standard were finalized on December 21, 2017 and are reflected in the area designations map.

Lead (particulate). The U.S. EPA promulgated a new rolling 3-month average lead standard in October 2008 of 0.15 µg/m^3. Designations were made for this standard in November 2010.

Designation Areas

From time to time, the boundaries of the California air basins have been changed to facilitate the planning process. CARB generally initiates these changes, and they are not always reflected in the U.S. EPA's area designations. For purposes of consistency, the maps in this attachment reflect area designation boundaries and nomenclature as promulgated by the U.S. EPA. In some cases, these may not be the same as those adopted by CARB. For example, the national area designations reflect the former Southeast Desert Air Basin. In accordance with Health and Safety Code section 39606.1, CARB redefined this area in 1996 to be the Mojave Desert Air Basin and Salton Sea Air Basin. The definitions and boundaries for all areas designated for the national standards can be found in Title 40, Code of Federal Regulations (CFR), Chapter I, Subchapter C, Part 81.305. They are available on the web at: *https://ecfr.io/Title-40/se40.20.81_1305*

Figure 11

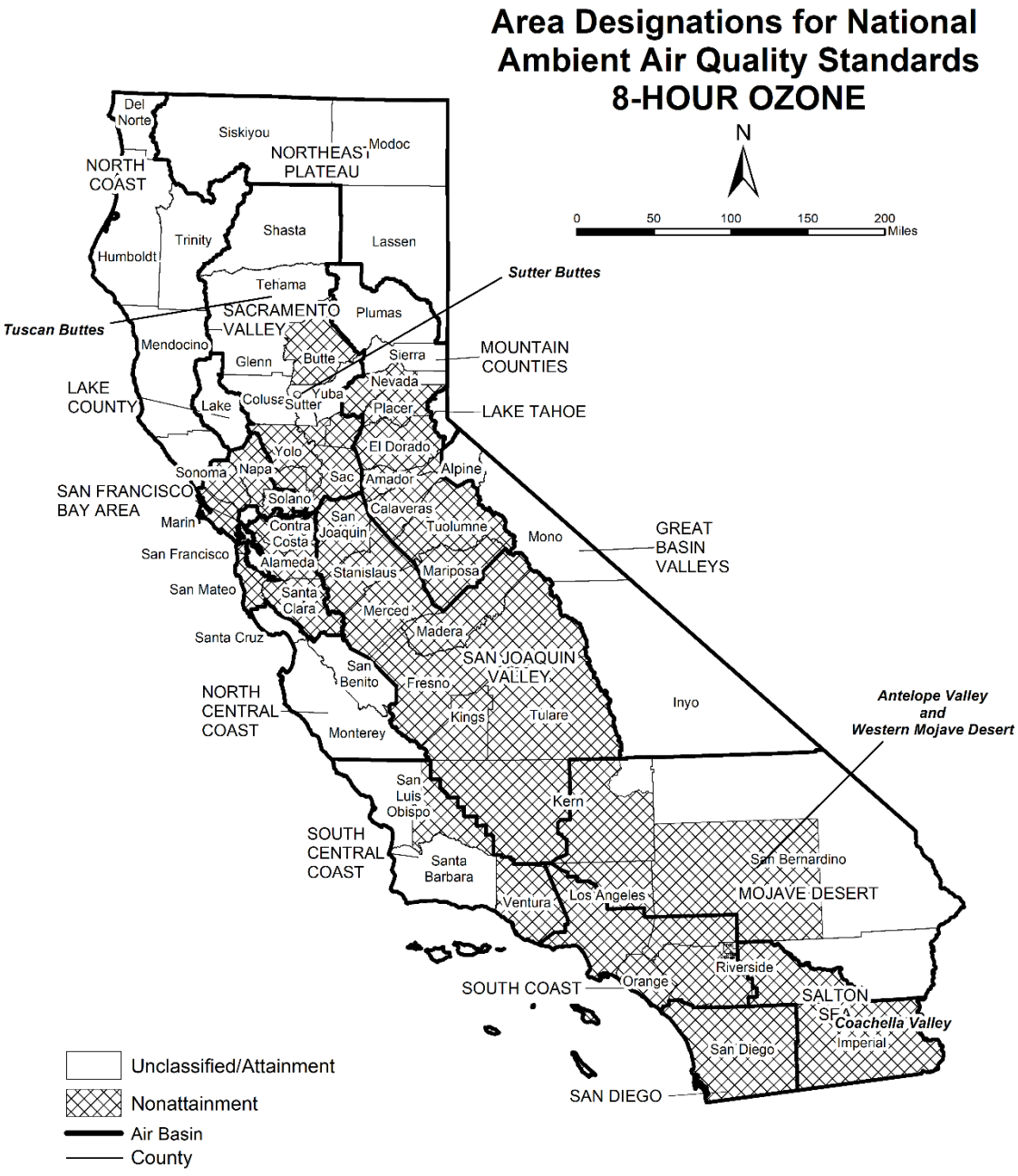

Area Designations for National Ambient Air Quality Standards
8-HOUR OZONE
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
Sutter Buttes
Tuscan Buttes
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Lake
Colusa
Yuba
Sutter
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
SAN JOAQUIN VALLEY
San Benito
Fresno
NORTH CENTRAL COAST
Kings
Tulare
Inyo
Antelope Valley and Western Mojave Desert
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
Riverside
SOUTH COAST
Orange
SALTON SEA
Coachella Valley
Imperial
San Diego
SAN DIEGO
Unclassified/Attainment
Nonattainment
Air Basin
County
Last Updated: November 2023
Map reflects the 2015 8-hour ozone standard of 0.070 ppm
Air Quality Planning and Science Division, CARB

Table 11
National Ambient Air Quality Standards Area Designations for 8-Hour Ozone*

Area	N	U/A
GREAT BASIN VALLEYS AIR BASIN		U/A
LAKE COUNTY AIR BASIN		U/A
LAKE TAHOE AIR BASIN		U/A
MOUNTAIN COUNTIES AIR BASIN		
Amador County	N	
Calaveras County	N	
El Dorado County (portion)[1]	N	
Mariposa County	N	
Nevada County		
- Western Nevada County	N	
- Remainder of County		U/A
Placer County (portion)[1]	N	
Plumas County		U/A
Sierra County		U/A
Tuolumne County	N	
NORTH CENTRAL COAST AIR BASIN		U/A
NORTH COAST AIR BASIN		U/A
NORTHEAST PLATEAU AIR BASIN		U/A
SACRAMENTO VALLEY AIR BASIN		
Butte County	N	
Colusa County		U/A
Glenn County		U/A
Sacramento Metro Area[1]	N	
Shasta County		U/A
Sutter County		
- Sutter Buttes	N	
- Southern portion of Sutter County[1]	N	
- Remainder of Sutter County		U/A
Tehama County		
- Tuscan Buttes	N	
- Remainder of Tehama County		U/A

Area	N	U/A
SACRAMENTO VALLEY AIR BASIN (cont.)		
Yolo County[1]	N	
Yuba County		U/A
SAN DIEGO COUNTY	N	
SAN FRANCISCO BAY AREA AIR BASIN	N	
SAN JOAQUIN VALLEY AIR BASIN	N	
SOUTH CENTRAL COAST AIR BASIN[2]		
San Luis Obispo County		
- Eastern San Luis Obispo County	N	
- Remainder of County		U/A
Santa Barbara County		U/A
Ventura County		
- Area excluding Anacapa and San Nicolas Islands	N	
- Channel Islands[2]		U/A
SOUTH COAST AIR BASIN[2]	N	
SOUTHEAST DESERT AIR BASIN		
Kern County (portion)	N	
- Indian Wells Valley		U/A
Imperial County	N	
Los Angeles County (portion)	N	
Riverside County (portion)		
- Coachella Valley	N	
- Non-AQMA portion		U/A
San Bernardino County		
- Western portion (AQMA)	N	
- Eastern portion (non-AQMA)		U/A

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.
NOTE: This map and Table reflect the 2015 8-hour ozone standard of 0.070 ppm.

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[1] For this purpose, the Sacramento Metro Area comprises all of Sacramento and Yolo Counties, the Sacramento Valley Air Basin portion of Solano County, the southern portion of Sutter County, and the Sacramento Valley and Mountain Counties Air Basins portions of Placer and El Dorado counties.

[2] South Central Coast Air Basin Channel Islands:
Santa Barbara County includes Santa Cruz, San Miguel, Santa Rosa, and Santa Barbara Islands.
Ventura County includes Anacapa and San Nicolas Islands.
South Coast Air Basin:
Los Angeles County includes San Clemente and Santa Catalina Islands.

Figure 12

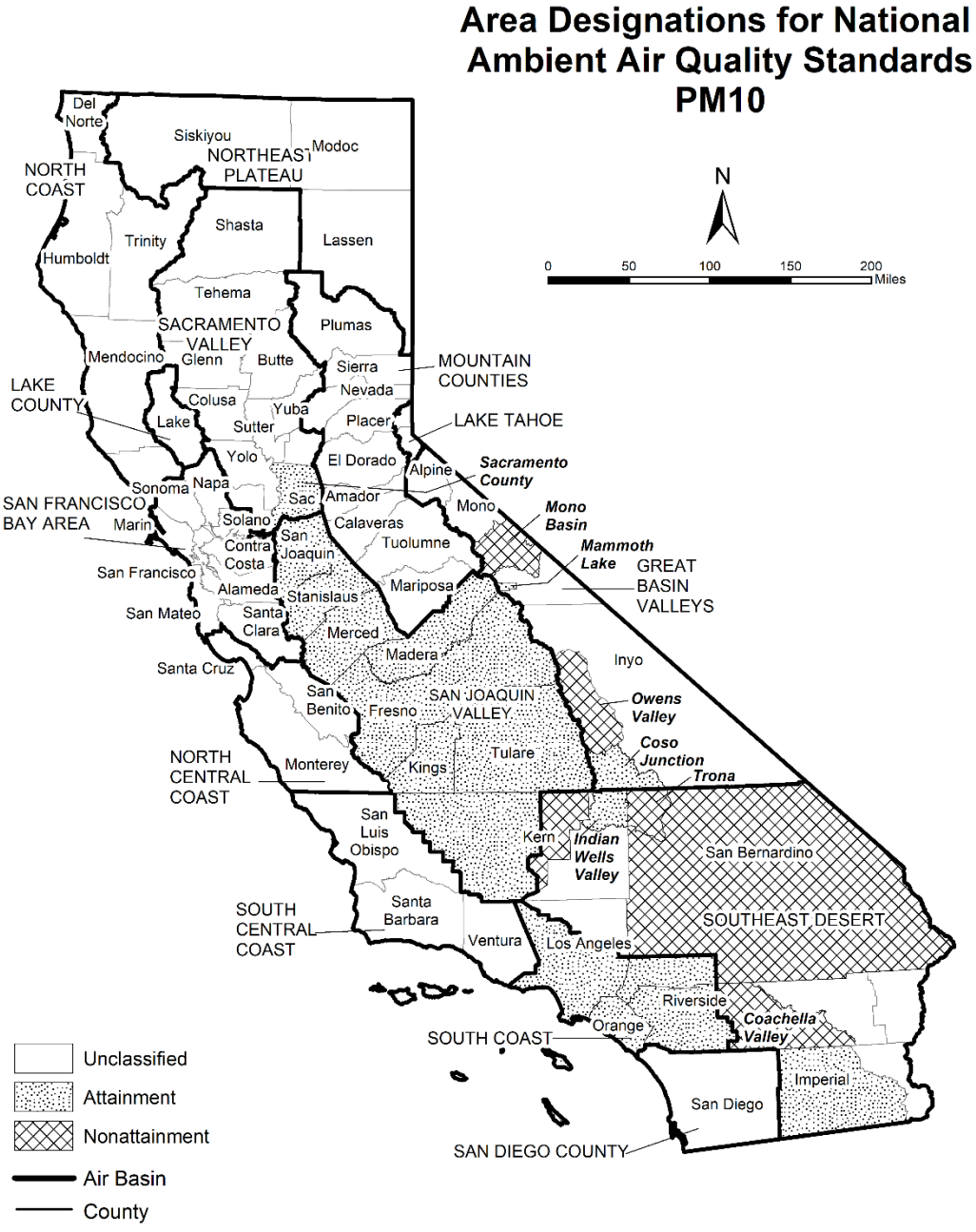

Area Designations for National Ambient Air Quality Standards PM10
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Shasta
Trinity
Lassen
Humboldt
Tehema
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Colusa
Yuba
Lake
Sutter
Placer
LAKE TAHOE
Yolo
El Dorado
Alpine
Sacramento County
Sonoma
Napa
Sac
Amador
Mono
Mono Basin
SAN FRANCISCO BAY AREA
Marin
Solano
Calaveras
Contra Costa
San Joaquin
Tuolumne
Mammoth Lake
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Inyo
Santa Cruz
San Benito
Fresno
SAN JOAQUIN VALLEY
Owens Valley
Coso Junction
Trona
NORTH CENTRAL COAST
Monterey
Kings
Tulare
San Luis Obispo
Kern
Indian Wells Valley
San Bernardino
SOUTH CENTRAL COAST
Santa Barbara
Ventura
Los Angeles
SOUTHEAST DESERT
Riverside
Coachella Valley
Orange
SOUTH COAST
Imperial
San Diego
SAN DIEGO COUNTY
Unclassified
Attainment
Nonattainment
Air Basin
County
Last Updated: November 2023
Air Quality Planning and Science Division

Table 12
National Ambient Air Quality Standards Area Designations for Suspended Particulate Matter (PM_{10})*

Area	N	U	A
GREAT BASIN VALLEYS AIR BASIN			
Alpine County		U	
Inyo County			
- Owens Valley Planning Area	N		
- Coso Junction			A
- Remainder of County		U	
Mono County			
- Mammoth Lake Planning Area			A
- Mono Lake Basin	N		
- Remainder of County		U	
LAKE COUNTY AIR BASIN		U	
LAKE TAHOE AIR BASIN		U	
MOUNTAIN COUNTIES AIR BASIN		U	
NORTH CENTRAL COAST AIR BASIN		U	
NORTH COAST AIR BASIN		U	
NORTHEAST PLATEAU AIR BASIN		U	
SACRAMENTO VALLEY AIR BASIN			
Sacramento County[1]			A
Remainder of Air Basin		U	
SAN DIEGO COUNTY		U	

Area	N	U	A
SAN FRANCISCO BAY AREA AIR BASIN		U	
SAN JOAQUIN VALLEY AIR BASIN			A
SOUTH CENTRAL COAST AIR BASIN		U	
SOUTH COAST AIR BASIN			A
SOUTHEAST DESERT AIR BASIN			
Eastern Kern County			
- Indian Wells Valley			A
- Portion within San Joaquin Valley Planning Area	N		
- Remainder of County		U	
Imperial County			
- Imperial Valley Planning Area[2]			A
- Remainder of County		U	
Los Angeles County (portion)		U	
Riverside County (portion)			
- Coachella Valley	N		
- Non-AQMA portion		U	
San Bernardino County			
- Trona	N		
- Remainder of County	N		

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

[1] Air quality in Sacramento County meets the national PM_{10} standards. The request for redesignation to attainment was approved by U.S. EPA in September 2013.

[2] The request for redesignation to attainment for the Imperial Valley Planning Area was approved by U.S. EPA in September 2020, effective October 2020.

Figure 13

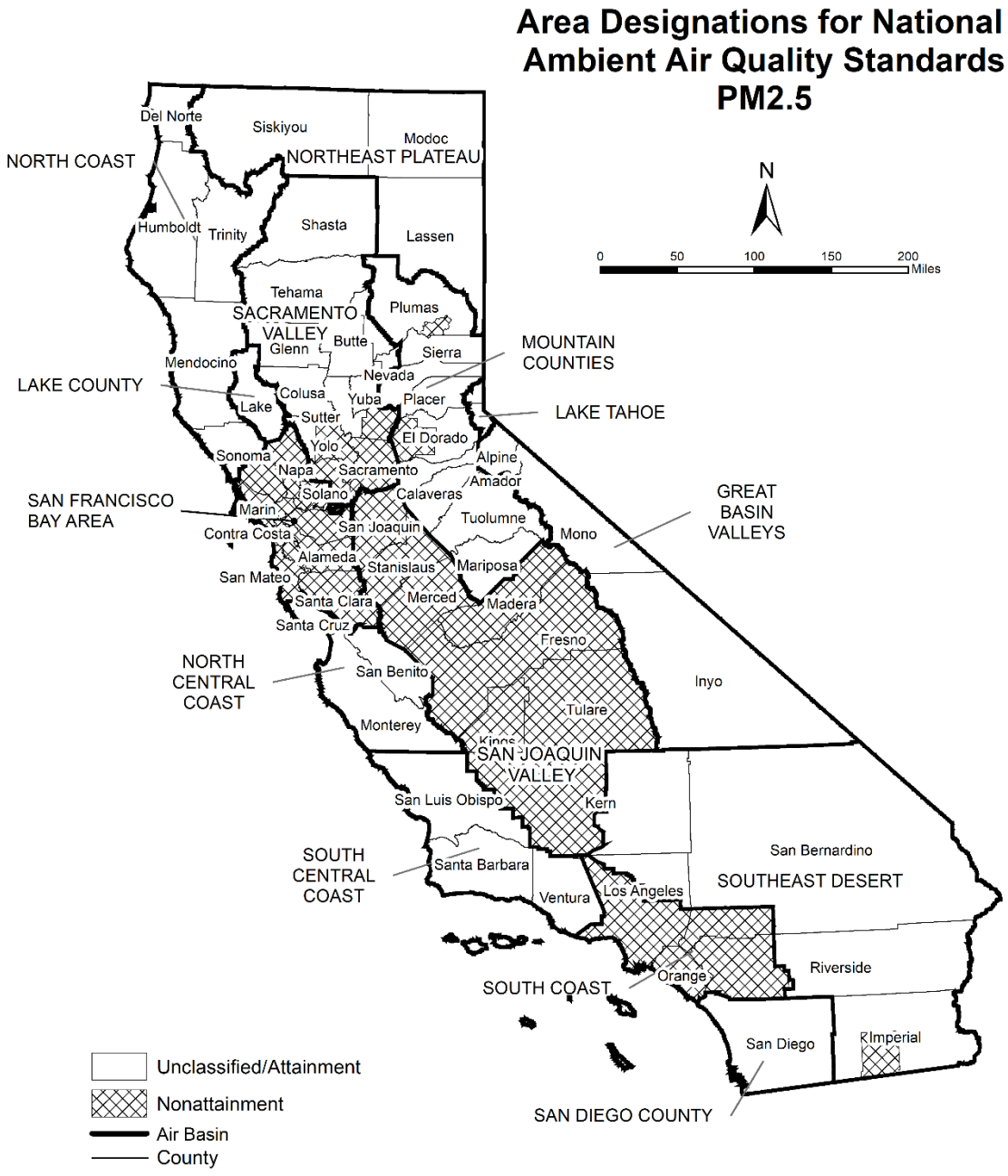

Area Designations for National Ambient Air Quality Standards PM2.5
N
0 50 100 150 200 Miles
NORTH COAST
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
Humboldt
Trinity
Shasta
Lassen
Tehama
SACRAMENTO VALLEY
Plumas
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Mendocino
Nevada
LAKE COUNTY
Colusa
Yuba
Placer
Lake
Sutter
LAKE TAHOE
El Dorado
Yolo
Sonoma
Alpine
Napa
Sacramento
Amador
SAN FRANCISCO BAY AREA
Solano
Calaveras
GREAT BASIN VALLEYS
Marin
Tuolumne
Contra Costa
San Joaquin
Mono
Alameda
Stanislaus
Mariposa
San Mateo
Merced
Santa Clara
Madera
Santa Cruz
Fresno
NORTH CENTRAL COAST
San Benito
Inyo
Tulare
Monterey
Kings
SAN JOAQUIN VALLEY
San Luis Obispo
Kern
San Bernardino
SOUTH CENTRAL COAST
Santa Barbara
SOUTHEAST DESERT
Ventura
Los Angeles
Riverside
Orange
SOUTH COAST
San Diego
Imperial
SAN DIEGO COUNTY
Unclassified/Attainment
Nonattainment
Air Basin
County
Last Updated: November 2023
Air Quality Planning and Science Division

Table 13
National Ambient Air Quality Standards Area Designations for Fine Particulate Matter ($PM_{2.5}$)

Area	N	U/A
GREAT BASIN VALLEYS AIR BASIN		U/A
LAKE COUNTY AIR BASIN		U/A
LAKE TAHOE AIR BASIN		U/A
MOUNTAIN COUNTIES AIR BASIN		
Plumas County		
- Portola Valley Portion of Plumas County	N	
- Remainder of Plumas County		U/A
Remainder of Air Basin		U/A
NORTH CENTRAL COAST AIR BASIN		U/A
NORTH COAST AIR BASIN		U/A
NORTHEAST PLATEAU AIR BASIN		U/A
SACRAMENTO VALLEY AIR BASIN		
Sacramento Metro Area[1]	N	
Remainder of Air Basin		U/A

Area	N	U/A
SAN DIEGO COUNTY		U/A
SAN FRANCISCO BAY AREA AIR BASIN[2]	N	
SAN JOAQUIN VALLEY AIR BASIN	N	
SOUTH CENTRAL COAST AIR BASIN		U/A
SOUTH COAST AIR BASIN[3]	N	
SOUTHEAST DESERT AIR BASIN		
Imperial County (portion)[4]	N	
Remainder of Air Basin		U/A

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305. This map reflects the 2006 24-hour $PM_{2.5}$ standard as well as the 1997 and 2012 $PM_{2.5}$ annual standards.

[1] For this purpose, Sacramento Metro Area comprises all of Sacramento and portions of El Dorado, Placer, Solano, and Yolo Counties. Air quality in this area meets the national $PM_{2.5}$ standards. A Determination of Attainment for the 2006 24-hour $PM_{2.5}$ standard was made by U.S. EPA in June 2017.

[2] Air quality in this area meets the national $PM_{2.5}$ standards. A Determination of Attainment for the 2006 24-hour $PM_{2.5}$ standard was made by U.S. EPA in June 2017.

[3] Those lands of the Santa Rosa Band of Cahulla Mission Indians in Riverside County are designated Unclassifiable/Attainment.

[4] That portion of Imperial County encompassing the urban and surrounding areas of Brawley, Calexico, El Centro, Heber, Holtville, Imperial, Seeley, and Westmorland. Air quality in this area meets the national $PM_{2.5}$ standards. A Determination of Attainment for the 2006 24-hour $PM_{2.5}$ standard was made by U.S. EPA in June 2017.

Figure 14

Last Updated: November 2023
Air Quality Planning and Science Division

Table 14
National Ambient Air Quality Standards Area Designations for Carbon Monoxide*

Area	N	U/A
GREAT BASIN VALLEYS AIR BASIN		U/A
LAKE COUNTY AIR BASIN		U/A
LAKE TAHOE AIR BASIN		U/A
MOUNTAIN COUNTIES AIR BASIN		U/A
NORTH CENTRAL COAST AIR BASIN		U/A
NORTH COAST AIR BASIN		U/A
NORTHEAST PLATEAU AIR BASIN		U/A

Area	N	U/A
SACRAMENTO VALLEY AIR BASIN		U/A
SAN DIEGO COUNTY		U/A
SAN FRANCISCO BAY AREA AIR BASIN		U/A
SAN JOAQUIN VALLEY AIR BASIN		U/A
SOUTH CENTRAL COAST AIR BASIN		U/A
SOUTH COAST AIR BASIN		U/A
SOUTHEAST DESERT AIR BASIN		U/A

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

Figure 15

Area Designations for National Ambient Air Quality Standards
NITROGEN DIOXIDE
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehema
Plumas
SACRAMENTO VALLEY
Mendocino
Glenn
Butte
Sierra
Nevada
MOUNTAIN COUNTIES
Colusa
Yuba
Placer
LAKE TAHOE
LAKE COUNTY
Lake
Sutter
Yolo
El Dorado
Napa
Alpine
Sonoma
Sac
Amador
SAN FRANCISCO BAY AREA
Solano
Marin
Calaveras
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Santa Cruz
Madera
SAN JOAQUIN VALLEY
San Benito
Fresno
NORTH CENTRAL COAST
Inyo
Tulare
Monterey
Kings
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
SOUTHEAST DESERT
Ventura
Los Angeles
San Bernardino
Riverside
Orange
SOUTH COAST
San Diego
Imperial
SAN DIEGO COUNTY
Unclassified/Attainment
Air Basin
County
Last Updated: November 2023
Air Quality Planning and Science Division

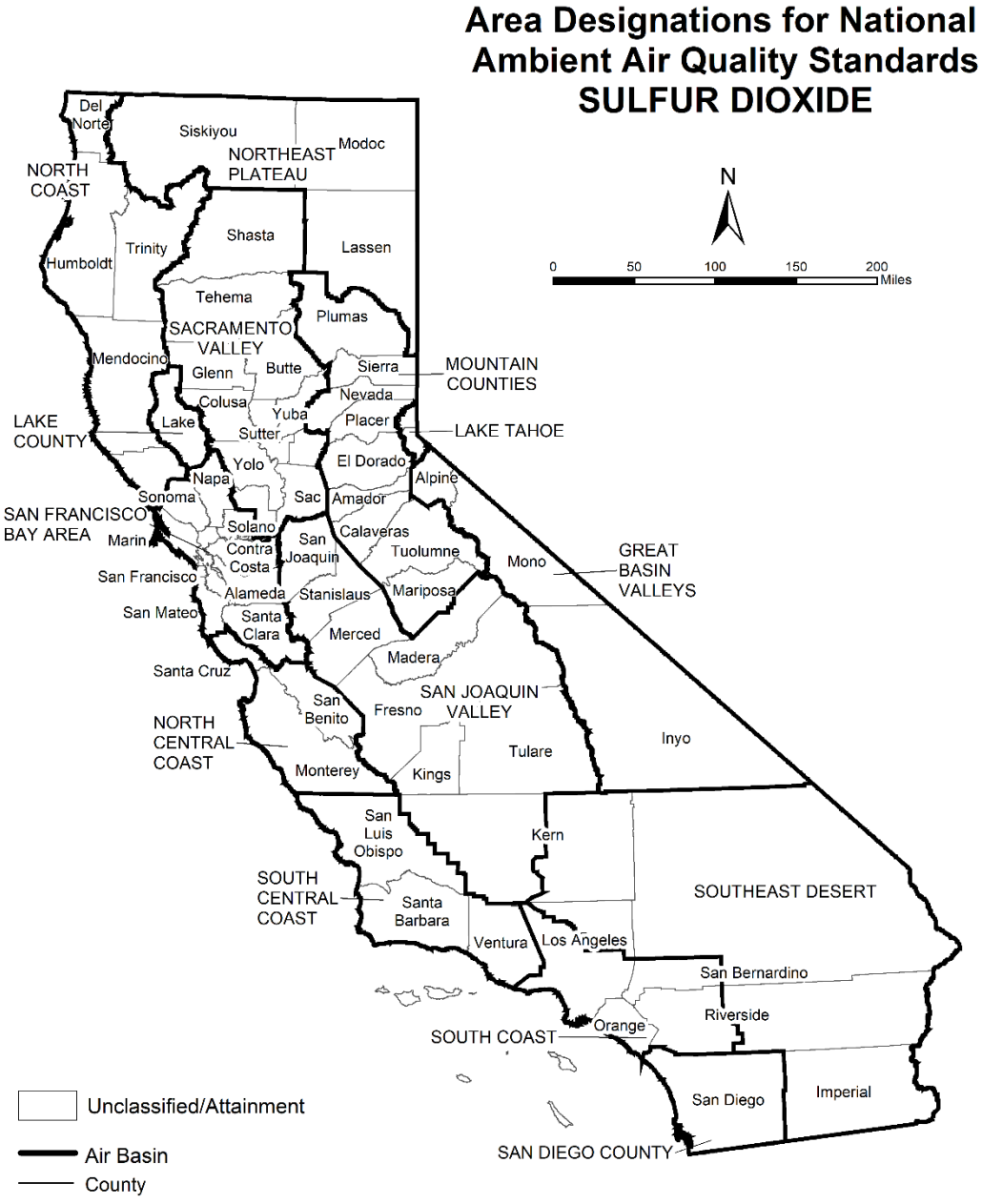
Table 15
National Ambient Air Quality Standards Area Designations for Nitrogen Dioxide*

Area	N	U/A
GREAT BASIN VALLEYS AIR BASIN		U/A
LAKE COUNTY AIR BASIN		U/A
LAKE TAHOE AIR BASIN		U/A
MOUNTAIN COUNTIES AIR BASIN		U/A
NORTH CENTRAL COAST AIR BASIN		U/A
NORTH COAST AIR BASIN		U/A
NORTHEAST PLATEAU AIR BASIN		U/A

Area	N	U/A
SACRAMENTO VALLEY AIR BASIN		U/A
SAN DIEGO COUNTY		U/A
SAN FRANCISCO BAY AREA AIR BASIN		U/A
SAN JOAQUIN VALLEY AIR BASIN		U/A
SOUTH CENTRAL COAST AIR BASIN		U/A
SOUTH COAST AIR BASIN		U/A
SOUTHEAST DESERT AIR BASIN		U/A

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

Figure 16



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Air Quality Planning and Science Division

Table 16
National Ambient Air Quality Standards Area Designations for Sulfur Dioxide*

Area	N	U/A
GREAT BASIN VALLEYS AIR BASIN		U/A
LAKE COUNTY AIR BASIN		U/A
LAKE TAHOE AIR BASIN		U/A
MOUNTAIN COUNTIES AIR BASIN		U/A
NORTH CENTRAL COAST AIR BASIN		U/A
NORTH COAST AIR BASIN		U/A
NORTHEAST PLATEAU AIR BASIN		U/A
SACRAMENTO VALLEY AIR BASIN		U/A
SAN DIEGO COUNTY		U/A
SAN FRANCISCO BAY AREA AIR BASIN		U/A
SAN JOAQUIN VALLEY AIR BASIN		U/A
SOUTH CENTRAL COAST AIR BASIN[1]		U/A
SOUTH COAST AIR BASIN		U/A
SOUTHEAST DESERT AIR BASIN		U/A

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.
NOTE: This map and table reflect the 2010 1-hour SO_2 standard of 75 ppb.

[1] South Central Coast Air Basin Channel Islands:
Santa Barbara County includes Santa Cruz, San Miguel, Santa Rosa, and Santa Barbara Islands.
Ventura County includes Anacapa and San Nicolas Islands.
Note that the San Clemente and Santa Catalina Islands are considered part of Los Angeles County, and therefore, are included as part of the South Coast Air Basin.

Figure 17

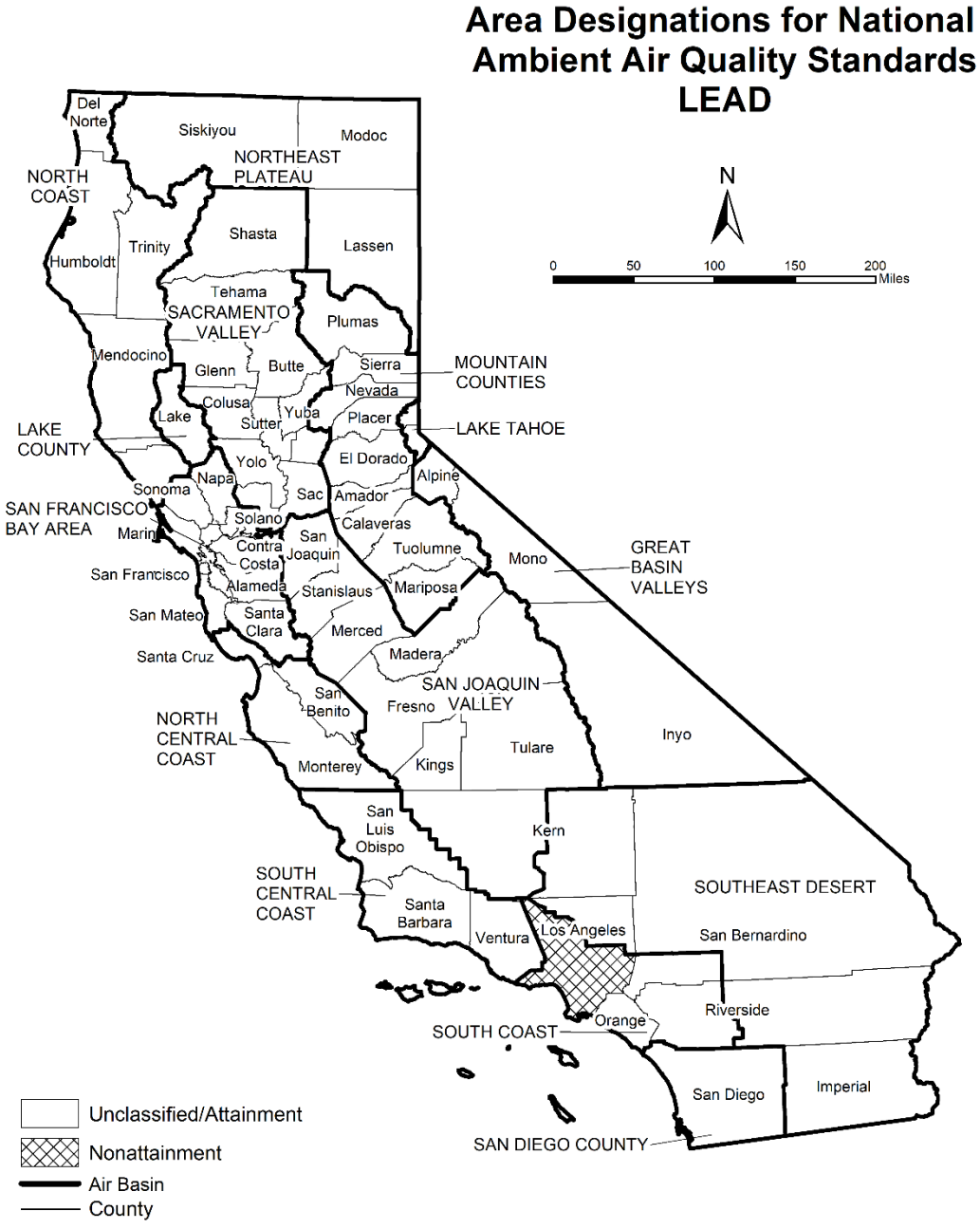
Area Designations for National Ambient Air Quality Standards
LEAD
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
Colusa
Yuba
Placer
Lake
Sutter
LAKE TAHOE
LAKE COUNTY
Yolo
El Dorado
Napa
Alpine
Sonoma
Sac
Amador
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Santa Cruz
Madera
SAN JOAQUIN VALLEY
San Benito
Fresno
NORTH CENTRAL COAST
Inyo
Tulare
Monterey
Kings
San Luis Obispo
Kern
SOUTH CENTRAL COAST
SOUTHEAST DESERT
Santa Barbara
Ventura
Los Angeles
San Bernardino
Riverside
Orange
SOUTH COAST
San Diego
Imperial
SAN DIEGO COUNTY
Unclassified/Attainment
Nonattainment
Air Basin
County
Last Updated: November 2023
Air Quality Planning and Science Division

Table 17
National Ambient Air Quality Standards Area Designations for Lead (particulate)

Area	N	U/A
GREAT BASIN VALLEYS AIR BASIN		U/A
LAKE COUNTY AIR BASIN		U/A
LAKE TAHOE AIR BASIN		U/A
MOUNTAIN COUNTIES AIR BASIN		U/A
NORTH CENTRAL COAST AIR BASIN		U/A
NORTH COAST AIR BASIN		U/A
NORTHEAST PLATEAU AIR BASIN		U/A
SACRAMENTO VALLEY AIR BASIN		U/A

Area	N	U/A
SAN DIEGO COUNTY		U/A
SAN FRANCISCO BAY AREA AIR BASIN		U/A
SAN JOAQUIN VALLEY AIR BASIN		U/A
SOUTH CENTRAL COAST AIR BASIN		U/A
SOUTH COAST AIR BASIN		
Los Angeles County (portion)[1]	N	
Remainder of Air Basin		U/A
SOUTHEAST DESERT AIR BASIN		U/A

[1] Portion of County in Air Basin, not including Channel Islands

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APPENDIX 3.1:

CALEEMOD PROJECT EMISSIONS MODEL OUTPUTS

15796 - Ethanac Business Park Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15796 - Ethanac Business Park
Construction Start Date	9/2/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	0.20
Location	33.73974846447821, -117.18160035687643
County	Riverside-South Coast
City	Menifee
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5517
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Unrefrigerated Warehouse-No Rail	265	1000sqft	6.08	264,710	58,864	—	—	Passenger Car Trips
Parking Lot	215	Space	1.22	0.00	0.00	—	—	—
Other Asphalt Surfaces	4.18	Acre	4.18	0.00	0.00	—	—	—
Road Widening	0.35	Mile	3.00	0.00	0.00	—	—	—
User Defined Industrial	265	User Defined Unit	0.00	0.00	0.00	—	—	Truck Trips

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.42	1.30	26.7	54.5	0.10	0.25	6.58	6.76	0.23	2.83	3.02	—	11,274	11,274	0.45	0.18	7.92	11,325
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.31	48.0	26.8	54.2	0.10	0.25	3.34	3.55	0.24	1.09	1.30	—	11,257	11,257	0.45	0.44	0.19	11,307
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.59	4.16	10.8	20.4	0.03	0.11	1.50	1.61	0.10	0.51	0.61	—	4,019	4,019	0.16	0.09	1.11	4,050
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.11	0.76	1.97	3.71	0.01	0.02	0.27	0.29	0.02	0.09	0.11	—	665	665	0.03	0.01	0.18	671

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.42	1.30	26.7	54.5	0.10	0.25	6.58	6.76	0.23	2.83	3.02	—	11,274	11,274	0.45	0.18	7.92	11,325
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.31	48.0	26.8	54.2	0.10	0.25	3.34	3.55	0.24	1.09	1.30	—	11,257	11,257	0.45	0.44	0.19	11,307
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.59	4.16	10.8	20.4	0.03	0.11	1.50	1.61	0.10	0.51	0.61	—	4,019	4,019	0.16	0.09	1.11	4,050
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.11	0.76	1.97	3.71	0.01	0.02	0.27	0.29	0.02	0.09	0.11	—	665	665	0.03	0.01	0.18	671

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.10	10.5	17.3	35.5	0.17	0.41	8.15	8.55	0.39	2.12	2.51	251	19,811	20,062	26.0	2.44	51.9	21,491
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.98	8.53	17.9	20.7	0.17	0.39	8.15	8.53	0.37	2.12	2.49	251	19,461	19,712	26.0	2.45	1.35	21,092

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.94	8.57	11.6	21.9	0.12	0.21	5.96	6.17	0.20	1.55	1.75	251	14,431	14,682	25.8	1.87	16.4	15,903
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.54	1.56	2.12	4.00	0.02	0.04	1.09	1.13	0.04	0.28	0.32	41.6	2,389	2,431	4.28	0.31	2.71	2,633

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.97	1.57	14.4	21.5	0.17	0.24	8.15	8.39	0.23	2.12	2.35	—	17,660	17,660	0.35	2.13	51.9	18,357
Area	2.05	7.93	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Stationary	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	5.10	10.5	17.3	35.5	0.17	0.41	8.15	8.55	0.39	2.12	2.51	251	19,811	20,062	26.0	2.44	51.9	21,491
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.90	1.51	15.1	18.2	0.16	0.24	8.15	8.39	0.23	2.12	2.35	—	17,358	17,358	0.35	2.14	1.35	18,006
Area	—	6.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469

Stationar	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	2.98	8.53	17.9	20.7	0.17	0.39	8.15	8.53	0.37	2.12	2.49	251	19,461	19,712	26.0	2.45	1.35	21,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.39	1.10	11.2	13.7	0.12	0.18	5.96	6.13	0.17	1.55	1.72	—	12,730	12,730	0.26	1.57	16.4	13,220
Area	1.40	7.33	0.07	7.88	< 0.005	0.01	—	0.01	0.01	—	0.01	—	32.4	32.4	< 0.005	< 0.005	—	32.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Stationary	0.15	0.13	0.38	0.34	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	69.0	69.0	< 0.005	< 0.005	0.00	69.2
Total	2.94	8.57	11.6	21.9	0.12	0.21	5.96	6.17	0.20	1.55	1.75	251	14,431	14,682	25.8	1.87	16.4	15,903
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.25	0.20	2.04	2.50	0.02	0.03	1.09	1.12	0.03	0.28	0.31	—	2,108	2,108	0.04	0.26	2.71	2,189
Area	0.26	1.34	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	199	199	0.02	< 0.005	—	200
Water	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150
Waste	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7
Stationary	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5
Total	0.54	1.56	2.12	4.00	0.02	0.04	1.09	1.13	0.04	0.28	0.32	41.6	2,389	2,431	4.28	0.31	2.71	2,633

3. Construction Emissions Details

3.1. Off-Site Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	0.47	10.9	20.8	0.04	0.07	—	0.07	0.07	—	0.07	—	3,802	3,802	0.15	0.03	—	3,815
Dust From Material Movement	—	—	—	—	—	—	3.82	3.82	—	1.80	1.80	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.93	1.77	< 0.005	0.01	—	0.01	0.01	—	0.01	—	323	323	0.01	< 0.005	—	324
Dust From Material Movement	—	—	—	—	—	—	0.32	0.32	—	0.15	0.15	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.17	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	53.5	53.5	< 0.005	< 0.005	—	53.6
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.97	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	176	176	0.01	0.01	0.65	179
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.6	30.6	< 0.005	< 0.005	0.09	32.1
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.9	13.9	< 0.005	< 0.005	0.02	14.1
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.60	2.60	< 0.005	< 0.005	< 0.005	2.72
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.31	2.31	< 0.005	< 0.005	< 0.005	2.34
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.45
Hauling	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	0.00

3.3. Off-Site Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,517
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.61	0.90	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.11	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	1.16	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	211	211	0.01	0.01	0.78	215
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.03	17.0
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.77	2.77	< 0.005	< 0.005	< 0.005	2.81
Vendor	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	0.00

Hauling	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	0.00

3.5. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41	0.41	11.9	18.2	0.03	0.20	—	0.20	0.19	—	0.19	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.59	1.59	—	0.24	0.24	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.36	0.55	< 0.005	0.01	—	0.01	0.01	—	0.01	—	103	103	< 0.005	< 0.005	—	104
Demolition	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.1	17.1	< 0.005	< 0.005	—	17.1
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	61.2	61.2	< 0.005	0.01	< 0.005	64.0
Hauling	0.08	0.03	2.67	0.51	0.02	0.05	0.66	0.71	0.05	0.19	0.24	—	2,503	2,503	0.04	0.39	0.14	2,621
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.93	5.93	< 0.005	< 0.005	0.01	6.02
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.93
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	75.4	75.4	< 0.005	0.01	0.07	79.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.98	0.98	< 0.005	< 0.005	< 0.005	1.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.5	12.5	< 0.005	< 0.005	0.01	13.1

3.7. Clear Site (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	3.34	6.73	0.01	0.03	—	0.03	0.03	—	0.03	—	1,378	1,378	0.06	0.01	—	1,383
Dust From Material Movement	—	—	—	—	—	—	1.70	1.70	—	0.88	0.88	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.10	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.5	41.5	< 0.005	< 0.005	—	41.7
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.87	6.87	< 0.005	< 0.005	—	6.90
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.4	32.4	< 0.005	< 0.005	< 0.005	32.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	61.2	61.2	< 0.005	0.01	< 0.005	64.0
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.93
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
Hauling	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	0.00

3.9. Grading - Building Pad (Rough) (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.23	26.4	53.3	0.10	0.20	—	0.20	0.20	—	0.20	—	10,849	10,849	0.44	0.09	—	10,886
Dust From Material Movement	—	—	—	—	—	—	3.08	3.08	—	1.02	1.02	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.23	26.4	53.3	0.10	0.20	—	0.20	0.20	—	0.20	—	10,849	10,849	0.44	0.09	—	10,886
Dust From Material Movement	—	—	—	—	—	—	3.08	3.08	—	1.02	1.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.12	2.61	5.26	0.01	0.02	—	0.02	0.02	—	0.02	—	1,070	1,070	0.04	0.01	—	1,074
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.48	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	177	177	0.01	< 0.005	—	178
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	1.16	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	211	211	0.01	0.01	0.78	215

Vendor	0.01	< 0.005	0.24	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	214	214	< 0.005	0.03	0.61	225
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	0.01	< 0.005	0.25	0.08	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	214	214	< 0.005	0.03	0.02	224
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	0.03	19.7
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.03	22.1
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.21	3.21	< 0.005	< 0.005	0.01	3.26
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.50	3.50	< 0.005	< 0.005	< 0.005	3.66
Hauling	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	0.00

3.11. Grading – Building Pad (Fine) + Site (Rough) (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.67	14.9	29.3	0.05	0.11	—	0.11	0.11	—	0.11	—	5,735	5,735	0.23	0.05	—	5,754

Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	1.47	2.89	0.01	0.01	—	0.01	0.01	—	0.01	—	566	566	0.02	< 0.005	—	568
Dust From Material Movement	—	—	—	—	—	—	0.24	0.24	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.27	0.53	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.6	93.6	< 0.005	< 0.005	—	94.0
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.77	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	141	141	0.01	< 0.005	0.52	143
Vendor	0.01	< 0.005	0.24	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	214	214	< 0.005	0.03	0.61	225
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.9	12.9	< 0.005	< 0.005	0.02	13.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.03	22.1
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.14	2.14	< 0.005	< 0.005	< 0.005	2.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.50	3.50	< 0.005	< 0.005	< 0.005	3.66
Hauling	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	0.00

3.13. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.49	14.1	22.3	0.04	0.15	—	0.15	0.15	—	0.15	—	3,675	3,675	0.15	0.03	—	3,688
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.49	14.1	22.3	0.04	0.15	—	0.15	0.15	—	0.15	—	3,675	3,675	0.15	0.03	—	3,688
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.12	3.52	5.56	0.01	0.04	—	0.04	0.04	—	0.04	—	916	916	0.04	0.01	—	919
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.64	1.01	< 0.005	0.01	—	0.01	0.01	—	0.01	—	152	152	0.01	< 0.005	—	152
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60	0.50	0.49	8.59	0.00	0.00	1.45	1.45	0.00	0.34	0.34	—	1,567	1,567	0.06	0.06	5.76	1,591
Vendor	0.02	0.01	0.54	0.17	< 0.005	0.01	0.14	0.14	0.01	0.04	0.05	—	490	490	0.01	0.07	1.39	513
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.53	0.47	0.54	6.49	0.00	0.00	1.45	1.45	0.00	0.34	0.34	—	1,440	1,440	0.07	0.06	0.15	1,459
Vendor	0.02	0.01	0.56	0.17	< 0.005	0.01	0.14	0.14	0.01	0.04	0.05	—	490	490	0.01	0.07	0.04	512
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.15	1.71	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	364	364	0.02	0.01	0.62	369
Vendor	0.01	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	122	122	< 0.005	0.02	0.15	128
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.03	0.31	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	60.2	60.2	< 0.005	< 0.005	0.10	61.1

Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.2	20.2	< 0.005	< 0.005	0.02	21.2
Hauling	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	0.00

3.15. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.51	0.76	< 0.005	0.01	—	0.01	0.01	—	0.01	—	108	108	< 0.005	< 0.005	—	108
Paving	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.09	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.8	17.8	< 0.005	< 0.005	—	17.9
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	0.01	< 0.005	0.18	0.05	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	153	153	< 0.005	0.02	0.01	160
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.02	14.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.9	10.9	< 0.005	< 0.005	0.01	11.4
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.32	2.32	< 0.005	< 0.005	< 0.005	2.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.80	1.80	< 0.005	< 0.005	< 0.005	1.89
Hauling	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	0.00

3.17. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.06	0.06	2.85	2.57	< 0.005	0.08	—	0.08	0.08	—	0.08	—	356	356	0.01	< 0.005	—	357
Architectural Coatings	—	47.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.21	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.3	26.3	< 0.005	< 0.005	—	26.4
Architectural Coatings	—	3.54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.36	4.36	< 0.005	< 0.005	—	4.38
Architectural Coatings	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.09	0.11	1.30	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	288	288	0.01	0.01	0.03	292
Vendor	0.01	< 0.005	0.18	0.05	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	153	153	< 0.005	0.02	0.01	160
Hauling	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.6	21.6	< 0.005	< 0.005	0.04	21.9
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.01	11.9
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.57	3.57	< 0.005	< 0.005	0.01	3.62
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.87	1.87	< 0.005	< 0.005	< 0.005	1.96
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.40	1.26	0.83	17.7	0.04	0.02	3.88	3.90	0.02	0.98	1.00	—	3,992	3,992	0.12	0.09	13.2	4,034
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00

User Defined Industrial	0.57	0.32	13.6	3.82	0.13	0.22	4.26	4.48	0.21	1.14	1.35	—	13,668	13,668	0.22	2.05	38.7	14,322
Total	1.97	1.57	14.4	21.5	0.17	0.24	8.15	8.39	0.23	2.12	2.35	—	17,660	17,660	0.35	2.13	51.9	18,357
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.34	1.20	0.92	14.3	0.04	0.02	3.88	3.90	0.02	0.98	1.00	—	3,686	3,686	0.13	0.09	0.34	3,717
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.56	0.31	14.2	3.84	0.13	0.22	4.26	4.49	0.21	1.14	1.35	—	13,672	13,672	0.22	2.05	1.00	14,289
Total	1.90	1.51	15.1	18.2	0.16	0.24	8.15	8.39	0.23	2.12	2.35	—	17,358	17,358	0.35	2.14	1.35	18,006
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.18	0.16	0.13	1.99	< 0.005	< 0.005	0.52	0.52	< 0.005	0.13	0.13	—	452	452	0.02	0.01	0.69	456
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.08	0.04	1.92	0.51	0.02	0.03	0.57	0.60	0.03	0.15	0.18	—	1,656	1,656	0.03	0.25	2.03	1,732
Total	0.25	0.20	2.04	2.50	0.02	0.03	1.09	1.12	0.03	0.28	0.31	—	2,108	2,108	0.04	0.26	2.71	2,189

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,156	1,156	0.11	0.01	—	1,162
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	44.2	44.2	< 0.005	< 0.005	—	44.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,200	1,200	0.11	0.01	—	1,207
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,156	1,156	0.11	0.01	—	1,162
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	44.2	44.2	< 0.005	< 0.005	—	44.4

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,200	1,200	0.11	0.01	—	1,207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	191	191	0.02	< 0.005	—	192
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	7.31	7.31	< 0.005	< 0.005	—	7.35
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	199	199	0.02	< 0.005	—	200

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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

Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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

Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.05	1.89	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Total	2.05	7.93	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39
Total	0.26	1.34	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5
Total	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Off-Site Grading	Linear, Grading & Excavation	4/24/2025	6/5/2025	5.00	31.0	—
Off-Site Paving	Linear, Paving	6/6/2025	7/18/2025	5.00	31.0	—
Demolition	Demolition	2/3/2025	2/17/2025	5.00	11.0	—
Clear Site	Site Preparation	2/18/2025	3/4/2025	5.00	11.0	—

Grading - Building Pad (Rough)	Grading	3/5/2025	4/23/2025	5.00	36.0	—
Grading – Building Pad (Fine) + Site (Rough)	Grading	4/24/2025	6/12/2025	5.00	36.0	—
Building Construction	Building Construction	6/13/2025	10/17/2025	5.00	91.0	—
Paving	Paving	10/20/2025	11/24/2025	5.00	26.0	—
Architectural Coating	Architectural Coating	11/25/2025	12/31/2025	5.00	27.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Off-Site Grading	Crawler Tractors	Diesel	Tier 4 Interim	3.00	8.00	87.0	0.43
Off-Site Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40
Off-Site Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Off-Site Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Off-Site Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Tier 4 Interim	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Clear Site	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading - Building Pad (Rough)	Scrapers	Diesel	Tier 4 Interim	5.00	8.00	423	0.48
Grading - Building Pad (Rough)	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading – Building Pad (Fine) + Site (Rough)	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading – Building Pad (Fine) + Site (Rough)	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40

Grading – Building Pad (Fine) + Site (Rough)	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Building Construction	Forklifts	Diesel	Tier 4 Interim	4.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Interim	2.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	8.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Interim	2.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	5.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	2.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	2.00	10.2	HHDT,MHDT
Demolition	Hauling	18.4	40.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Clear Site	—	—	—	—
Clear Site	Worker	2.50	18.5	LDA,LDT1,LDT2
Clear Site	Vendor	2.00	10.2	HHDT,MHDT
Clear Site	Hauling	0.00	20.0	HHDT
Clear Site	Onsite truck	—	—	HHDT
Grading - Building Pad (Rough)	—	—	—	—

Grading - Building Pad (Rough)	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading - Building Pad (Rough)	Vendor	7.00	10.2	HHDT,MHDT
Grading - Building Pad (Rough)	Hauling	0.00	20.0	HHDT
Grading - Building Pad (Rough)	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	111	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	16.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	5.00	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	22.2	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	5.00	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Grading – Building Pad (Fine) + Site (Rough)	—	—	—	—
Grading – Building Pad (Fine) + Site (Rough)	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading – Building Pad (Fine) + Site (Rough)	Vendor	7.00	10.2	HHDT,MHDT
Grading – Building Pad (Fine) + Site (Rough)	Hauling	0.00	20.0	HHDT
Grading – Building Pad (Fine) + Site (Rough)	Onsite truck	—	—	HHDT

Off-Site Grading	—	—	—	—
Off-Site Grading	Worker	12.5	18.5	LDA,LDT1,LDT2
Off-Site Grading	Vendor	1.00	10.2	HHDT,MHDT
Off-Site Grading	Hauling	0.00	20.0	HHDT
Off-Site Grading	Onsite truck	—	—	HHDT
Off-Site Paving	—	—	—	—
Off-Site Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Off-Site Paving	Vendor	0.00	10.2	HHDT,MHDT
Off-Site Paving	Hauling	0.00	20.0	HHDT
Off-Site Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	397,065	132,355	14,113

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Off-Site Grading	—	—	3.00	0.00	—
Demolition	0.00	0.00	0.00	17,562	—
Clear Site	—	—	5.50	0.00	—

Grading - Building Pad (Rough)	—	—	198	0.00	—
Grading – Building Pad (Fine) + Site (Rough)	—	—	108	0.00	—
Paving	0.00	0.00	0.00	0.00	8.40

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.22	100%
Other Asphalt Surfaces	4.18	100%
Road Widening	3.00	100%
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	349	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year

Unrefrigerated Warehouse-No Rail	294	25.7	10.3	78,551	5,577	487	196	1,489,595
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	162	14.0	5.56	43,258	4,901	424	168	1,308,548

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	397,065	132,355	14,113

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)

Unrefrigerated Warehouse-No Rail	1,218,288	346	0.0330	0.0040	0.00
Parking Lot	46,553	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
User Defined Industrial	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	61,214,187	933,331
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	249	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	1.00	1.00	50.0	300	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.8	annual days of extreme heat
Extreme Precipitation	2.60	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.89	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	49.2
AQ-DPM	31.8
Drinking Water	10.2
Lead Risk Housing	16.1
Pesticides	27.2
Toxic Releases	23.1
Traffic	72.3
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	22.1
Haz Waste Facilities/Generators	23.7
Impaired Water Bodies	0.00
Solid Waste	52.9
Sensitive Population	—
Asthma	42.3
Cardio-vascular	74.9

Low Birth Weights	9.85
Socioeconomic Factor Indicators	—
Education	58.9
Housing	12.8
Linguistic	7.38
Poverty	50.7
Unemployment	30.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	31.83626331
Employed	9.39304504
Median HI	19.47901963
Education	—
Bachelor's or higher	31.46413448
High school enrollment	100
Preschool enrollment	61.41408957
Transportation	—
Auto Access	91.71050943
Active commuting	43.93686642
Social	—
2-parent households	8.456306942
Voting	25.54856923
Neighborhood	—
Alcohol availability	85.78211215

Park access	2.194276915
Retail density	15.48825869
Supermarket access	15.07763377
Tree canopy	1.077890414
Housing	—
Homeownership	92.2751187
Housing habitability	54.38213782
Low-inc homeowner severe housing cost burden	5.658924676
Low-inc renter severe housing cost burden	73.36070833
Uncrowded housing	54.63877839
Health Outcomes	—
Insured adults	13.51212627
Arthritis	4.6
Asthma ER Admissions	63.2
High Blood Pressure	6.0
Cancer (excluding skin)	16.1
Asthma	21.6
Coronary Heart Disease	3.6
Chronic Obstructive Pulmonary Disease	5.0
Diagnosed Diabetes	23.2
Life Expectancy at Birth	14.6
Cognitively Disabled	97.6
Physically Disabled	26.6
Heart Attack ER Admissions	35.8
Mental Health Not Good	30.2
Chronic Kidney Disease	7.4
Obesity	24.6

Pedestrian Injuries	72.5
Physical Health Not Good	21.6
Stroke	8.8
Health Risk Behaviors	—
Binge Drinking	69.8
Current Smoker	21.9
No Leisure Time for Physical Activity	24.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	19.9
Elderly	29.3
English Speaking	74.5
Foreign-born	34.9
Outdoor Workers	34.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	81.9
Traffic Density	49.5
Traffic Access	23.0
Other Indices	—
Hardship	81.8
Other Decision Support	—
2016 Voting	40.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	27.0

Healthy Places Index Score for Project Location (b)	20.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Client provided construction dates and off-site construction dates
Land Use	Acreage taken from Site Plan Off-SIte construction acreage and miles of construction conservatively assumed
Construction: Off-Road Equipment	Client provided construction equipment and standard 8-hour work day
Construction: Trips and VMT	"CalEEMod only assumes Vendor Trips during Building Construction. The CalEEMod default trips are based on the ratio between each phase based on the number of days." Demolition quantities will be hauled off-site to a site approximately 40-miles away
Construction: Architectural Coatings	SCAQMD Rule 1113
Operations: Vehicle Data	Trip Characteristics based on information provided in the Traffic Analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle trucks
Operations: Architectural Coatings	SCAQMD Rule 1113

Operations: Energy Use	Natural Gas will not be utilized

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APPENDIX 3.2:

CALEEMOD PROJECT LOCALIZED OPERATIONAL EMISSIONS MODEL OUTPUTS

15796 - Ethanac Business Park (Operational LSTs) Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15796 - Ethanac Business Park (Operational LSTs)
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	0.20
Location	33.73974846447821, -117.18160035687643
County	Riverside-South Coast
City	Menifee
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5517
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	265	1000sqft	6.08	264,710	58,864	—	—	Passenger Car Trips

Parking Lot	215	Space	1.22	0.00	0.00	—	—	—
Other Asphalt Surfaces	4.18	Acre	4.18	0.00	0.00	—	—	—
Road Widening	0.35	Mile	3.00	0.00	0.00	—	—	—
User Defined Industrial	265	User Defined Unit	0.00	0.00	0.00	—	—	Truck Trips

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.11	9.82	4.68	17.0	0.01	0.17	0.07	0.24	0.16	0.02	0.18	251	2,501	2,753	25.7	0.37	0.40	3,506
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.01	7.88	4.68	5.79	0.01	0.15	0.07	0.22	0.15	0.02	0.17	251	2,455	2,706	25.7	0.37	0.01	3,460
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.22	8.09	1.82	10.6	< 0.005	0.04	0.05	0.09	0.03	0.01	0.05	251	1,957	2,208	25.7	0.35	0.12	2,955
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.41	1.48	0.33	1.94	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	41.6	324	366	4.25	0.06	0.02	489

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.98	0.91	1.83	2.98	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	350	350	0.08	0.06	0.40	372
Area	2.05	7.93	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Stationary	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	4.11	9.82	4.68	17.0	0.01	0.17	0.07	0.24	0.16	0.02	0.18	251	2,501	2,753	25.7	0.37	0.40	3,506
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.92	0.85	1.93	3.28	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	352	352	0.09	0.06	0.01	373
Area	—	6.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Stationary	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	2.01	7.88	4.68	5.79	0.01	0.15	0.07	0.22	0.15	0.02	0.17	251	2,455	2,706	25.7	0.37	0.01	3,460
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.67	0.62	1.38	2.40	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	256	256	0.07	0.05	0.12	272
Area	1.40	7.33	0.07	7.88	< 0.005	0.01	—	0.01	0.01	—	0.01	—	32.4	32.4	< 0.005	< 0.005	—	32.5

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Stationary	0.15	0.13	0.38	0.34	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	69.0	69.0	< 0.005	< 0.005	0.00	69.2
Total	2.22	8.09	1.82	10.6	< 0.005	0.04	0.05	0.09	0.03	0.01	0.05	251	1,957	2,208	25.7	0.35	0.12	2,955
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.11	0.25	0.44	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.4	42.4	0.01	0.01	0.02	45.0
Area	0.26	1.34	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	199	199	0.02	< 0.005	—	200
Water	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150
Waste	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7
Stationary	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5
Total	0.41	1.48	0.33	1.94	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	41.6	324	366	4.25	0.06	0.02	489

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	0.83	0.81	0.16	1.78	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	89.3	89.3	0.04	0.02	0.14	96.5
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.15	0.10	1.67	1.20	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	261	261	0.04	0.04	0.26	275
Total	0.98	0.91	1.83	2.98	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	350	350	0.08	0.06	0.40	372
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.79	0.77	0.17	2.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	86.6	86.6	0.05	0.02	< 0.005	94.1
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.13	0.09	1.76	1.25	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	265	265	0.04	0.04	0.01	279
Total	0.92	0.85	1.93	3.28	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	352	352	0.09	0.06	0.01	373
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.10	0.10	0.02	0.27	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	10.6	10.6	0.01	< 0.005	0.01	11.5

Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.02	0.01	0.23	0.16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	31.8	31.8	0.01	0.01	0.01	33.5
Total	0.12	0.11	0.25	0.44	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.4	42.4	0.01	0.01	0.02	45.0

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,156	1,156	0.11	0.01	—	1,162
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	44.2	44.2	< 0.005	< 0.005	—	44.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,200	1,200	0.11	0.01	—	1,207

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,156	1,156	0.11	0.01	—	1,162
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	44.2	44.2	< 0.005	< 0.005	—	44.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,200	1,200	0.11	0.01	—	1,207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	191	191	0.02	< 0.005	—	192
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	7.31	7.31	< 0.005	< 0.005	—	7.35
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	199	199	0.02	< 0.005	—	200

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.05	1.89	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5

Total	2.05	7.93	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39
Total	0.26	1.34	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrige rated Warehou se-No Rail	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrige rated Warehou se-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5
Total	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year

Unrefrigerated Warehouse-No Rail	294	25.7	10.3	78,551	58.8	5.14	2.06	15,710
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	162	14.0	5.56	43,258	32.4	2.81	1.11	8,652

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	397,065	132,355	14,113

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)

Unrefrigerated Warehouse-No Rail	1,218,288	346	0.0330	0.0040	0.00
Parking Lot	46,553	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
User Defined Industrial	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	61,214,187	933,331
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	249	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	1.00	1.00	50.0	300	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.8	annual days of extreme heat
Extreme Precipitation	2.60	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.89	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	49.2
AQ-DPM	31.8
Drinking Water	10.2
Lead Risk Housing	16.1
Pesticides	27.2
Toxic Releases	23.1
Traffic	72.3
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	22.1
Haz Waste Facilities/Generators	23.7
Impaired Water Bodies	0.00
Solid Waste	52.9
Sensitive Population	—
Asthma	42.3
Cardio-vascular	74.9

Low Birth Weights	9.85
Socioeconomic Factor Indicators	—
Education	58.9
Housing	12.8
Linguistic	7.38
Poverty	50.7
Unemployment	30.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	31.83626331
Employed	9.39304504
Median HI	19.47901963
Education	—
Bachelor's or higher	31.46413448
High school enrollment	100
Preschool enrollment	61.41408957
Transportation	—
Auto Access	91.71050943
Active commuting	43.93686642
Social	—
2-parent households	8.456306942
Voting	25.54856923
Neighborhood	—
Alcohol availability	85.78211215

Park access	2.194276915
Retail density	15.48825869
Supermarket access	15.07763377
Tree canopy	1.077890414
Housing	—
Homeownership	92.2751187
Housing habitability	54.38213782
Low-inc homeowner severe housing cost burden	5.658924676
Low-inc renter severe housing cost burden	73.36070833
Uncrowded housing	54.63877839
Health Outcomes	—
Insured adults	13.51212627
Arthritis	4.6
Asthma ER Admissions	63.2
High Blood Pressure	6.0
Cancer (excluding skin)	16.1
Asthma	21.6
Coronary Heart Disease	3.6
Chronic Obstructive Pulmonary Disease	5.0
Diagnosed Diabetes	23.2
Life Expectancy at Birth	14.6
Cognitively Disabled	97.6
Physically Disabled	26.6
Heart Attack ER Admissions	35.8
Mental Health Not Good	30.2
Chronic Kidney Disease	7.4
Obesity	24.6

Pedestrian Injuries	72.5
Physical Health Not Good	21.6
Stroke	8.8
Health Risk Behaviors	—
Binge Drinking	69.8
Current Smoker	21.9
No Leisure Time for Physical Activity	24.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	19.9
Elderly	29.3
English Speaking	74.5
Foreign-born	34.9
Outdoor Workers	34.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	81.9
Traffic Density	49.5
Traffic Access	23.0
Other Indices	—
Hardship	81.8
Other Decision Support	—
2016 Voting	40.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	27.0

Healthy Places Index Score for Project Location (b)	20.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Client provided construction dates and off-site construction dates
Land Use	Acreage taken from Site Plan Off-SIte construction acreage and miles of construction conservatively assumed
Construction: Off-Road Equipment	Client provided construction equipment and standard 8-hour work day
Construction: Trips and VMT	"CalEEMod only assumes Vendor Trips during Building Construction. The CalEEMod default trips are based on the ratio between each phase based on the number of days." Demolition quantities will be hauled off-site to a site approximately 40-miles away
Construction: Architectural Coatings	SCAQMD Rule 1113
Operations: Vehicle Data	Trip Characteristics based on information provided in the Traffic Analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle trucks
Operations: Architectural Coatings	SCAQMD Rule 1113

Operations: Energy Use	Natural Gas will not be utilized

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APPENDIX 3.3:

AERMOD MODEL OUTPUTS

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**
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**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Construction
CO LSTs\Construction CO LSTs.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 1 8
   URBANOPT 2189641 County_of_Riverside
   POLLUTID CO
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Construction CO LSTs.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
   SRCPARAM VOL1         0.1398703651     5.000    22.188     1.400
   SRCPARAM VOL2         0.1398703651     5.000    22.188     1.400
   SRCPARAM VOL3         0.1398703651     5.000    22.188     1.400
   SRCPARAM VOL4         0.1398703651     5.000    22.188     1.400
   SRCPARAM VOL5         0.1398703651     5.000    22.188     1.400
   SRCPARAM VOL6         0.1398703651     5.000    22.188     1.400
```

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   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
```

```
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
************************************
** AERMOD Receptor Pathway
************************************
```

```
**
**
RE STARTING
   INCLUDED "Construction CO LSTs.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "CONSTRUCTION CO LSTS.AD\01H1GALL.PLT" 31
   PLOTFILE 8 ALL 1ST "CONSTRUCTION CO LSTS.AD\08H1GALL.PLT" 32
   SUMMFILE "Construction CO LSTs.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    North American Datum 1983
** DTMRGN   CONUS
** UNITS    m
** ZONE     11
** ZONEINX  0
**
**
**************************************
**
** AERMOD Input Produced by:
```

```
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Construction
CO LSTs\Construction CO LSTs.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 1 8
   URBANOPT 2189641 County_of_Riverside
   POLLUTID CO
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Construction CO LSTs.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
   SRCPARAM VOL1         0.1398703651     5.000    22.188     1.400
   SRCPARAM VOL2         0.1398703651     5.000    22.188     1.400
   SRCPARAM VOL3         0.1398703651     5.000    22.188     1.400
   SRCPARAM VOL4         0.1398703651     5.000    22.188     1.400
   SRCPARAM VOL5         0.1398703651     5.000    22.188     1.400
   SRCPARAM VOL6         0.1398703651     5.000    22.188     1.400
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
```

```
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Construction CO LSTs.rou"
```

```
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "CONSTRUCTION CO LSTS.AD\01H1GALL.PLT" 31
   PLOTFILE 8 ALL 1ST "CONSTRUCTION CO LSTS.AD\08H1GALL.PLT" 32
   SUMMFILE "Construction CO LSTs.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     168       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     168       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
```

```
 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                         ***       09:49:43

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                          ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses URBAN Dispersion Algorithm for the SBL for     6 Source(s),
        for Total of    1 Urban Area(s):
   Urban Population =   2189641.0 ;  Urban Roughness Length =  1.000 m
      * Urban Roughness Length of 1.0 Meter Used.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Accepts FLAGPOLE Receptor . Heights.
      * The User Specified a Pollutant Type of: CO

 **Model Calculates  2 Short Term Average(s) of:   1-HR   8-HR

 **This Run Includes:      6 Source(s);       1 Source Group(s); and      46
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      6 VOLUME source(s)
                 and:      0 AREA type source(s)
```

```
                and:      0 LINE source(s)
                and:      0 RLINE/RLINEXT source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   Construction CO LSTs.err

 **File for Summary of Results:   Construction CO LSTs.sum

↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                        ***       09:49:43

                                  PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY	AIRCRAFT
VOL1	0	0.13987E+00	483130.5	3733373.1	435.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL2	0	0.13987E+00	483225.6	3733373.4	436.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL3	0	0.13987E+00	483130.5	3733277.6	435.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL4	0	0.13987E+00	483225.9	3733278.4	436.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL5	0	0.13987E+00	483131.6	3733211.8	435.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL6	0	0.13987E+00	483227.7	3733214.3	436.0	5.00	22.19	1.40	YES	HRDOW	NO

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	VOL1 , VOL2 , VOL3 , VOL4 , VOL5 , VOL6 ,

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

2189641. VOL1   , VOL2   , VOL3   , VOL4   , VOL5   , VOL6   ,

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = VOL1   ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00						

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL2   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                  DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

```
 SOURCE ID = VOL3          ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:49:43

                                   PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL4          ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

```
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       09:49:43

                                  PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL5         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                            DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
```

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL6   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(483206.8, 3733449.9, 435.6, 435.6, 2.0); (483197.5, 3733502.1, 435.2, 435.2, 2.0);
(483013.0, 3733295.4, 435.0, 435.0, 2.0); (482921.3, 3733279.9, 435.0, 435.0, 2.0);
(483004.2, 3733358.2, 435.0, 435.0, 2.0); (482943.0, 3733222.1, 435.0, 435.0, 2.0);
(483576.0, 3733053.9, 437.0, 437.0, 2.0); (483712.9, 3733038.7, 437.4, 437.4, 2.0);
(483326.2, 3732789.9, 436.0, 436.0, 2.0); (483181.9, 3732838.7, 436.0, 436.0, 2.0);
(483392.2, 3732810.1, 436.7, 436.7, 2.0); (482867.7, 3732851.0, 435.0, 435.0, 2.0);
(483630.1, 3732851.5, 437.0, 437.0, 2.0); (482959.6, 3733603.3, 435.0, 435.0, 2.0);
(482960.0, 3733649.7, 435.0, 435.0, 2.0); (482856.2, 3733634.2, 435.0, 435.0, 2.0);
(482816.4, 3733631.3, 435.0, 435.0, 2.0); (483094.9, 3733654.3, 435.0, 435.0, 2.0);
(483176.1, 3733639.3, 436.0, 436.0, 2.0); (483267.8, 3733641.8, 436.0, 436.0, 2.0);
(483301.7, 3733642.6, 436.0, 436.0, 2.0); (483130.9, 3733648.8, 435.0, 435.0, 2.0);
(483299.3, 3733586.0, 436.0, 436.0, 2.0); (483323.1, 3733603.4, 436.0, 436.0, 2.0);
(483297.8, 3733710.2, 436.0, 436.0, 2.0); (483365.8, 3733652.2, 436.0, 436.0, 2.0);
(483234.1, 3733518.0, 436.0, 436.0, 2.0); (483233.3, 3733502.4, 436.0, 436.0, 2.0);
(483708.4, 3733587.9, 438.0, 438.0, 2.0); (483367.4, 3733628.2, 436.0, 436.0, 2.0);
(483489.8, 3733629.2, 437.0, 437.0, 2.0); (483469.2, 3733603.2, 437.0, 437.0, 2.0);
(483395.9, 3733616.4, 436.0, 436.0, 2.0); (482349.6, 3733527.0, 434.0, 434.0, 2.0);
(482357.8, 3733501.6, 434.0, 434.0, 2.0); (482270.4, 3733723.6, 433.0, 433.0, 2.0);
(482320.9, 3733736.9, 433.0, 433.0, 2.0); (482354.2, 3733907.3, 433.0, 433.0, 2.0);
(482347.8, 3733886.1, 433.0, 433.0, 2.0); (482297.6, 3733821.3, 433.0, 433.0, 2.0);
(482523.4, 3734103.9, 433.3, 433.3, 2.0); (482584.3, 3734097.5, 434.0, 434.0, 2.0);
(484156.4, 3733747.0, 441.0, 441.0, 2.0); (484156.6, 3733885.1, 441.5, 441.5, 2.0);
(484123.9, 3733944.6, 441.1, 441.1, 2.0); (483969.0, 3733570.2, 439.2, 439.2, 2.0);

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

1 1 1

DATA ***

Surface file: PERI_V9_ADJU\PERI_v9.SFC
Met Version: 16216
Profile file: PERI_V9_ADJU\PERI_v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 3171 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN

Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-7.9	0.125	-9.000	-9.000	-999.	106.	21.2	0.19	0.61	1.00	1.30	335.	9.1	282.5	5.5
10	01	01	1	02	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	142.	9.1	280.9	5.5
10	01	01	1	03	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	324.	9.1	280.4	5.5
10	01	01	1	04	-1.3	0.064	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	294.	9.1	278.8	5.5
10	01	01	1	05	-3.9	0.088	-9.000	-9.000	-999.	62.	15.0	0.19	0.61	1.00	0.90	205.	9.1	278.1	5.5
10	01	01	1	06	-1.3	0.065	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	3.	9.1	277.0	5.5
10	01	01	1	07	-8.0	0.125	-9.000	-9.000	-999.	106.	21.0	0.19	0.61	1.00	1.30	99.	9.1	277.0	5.5
10	01	01	1	08	-3.3	0.086	-9.000	-9.000	-999.	61.	16.8	0.19	0.61	0.54	0.90	319.	9.1	278.8	5.5
10	01	01	1	09	20.1	0.128	0.307	0.010	49.	110.	-9.0	0.19	0.61	0.33	0.90	239.	9.1	284.2	5.5
10	01	01	1	10	56.7	0.087	0.560	0.010	107.	62.	-1.0	0.19	0.61	0.26	0.40	188.	9.1	289.2	5.5
10	01	01	1	11	81.5	0.323	0.867	0.008	277.	441.	-35.9	0.19	0.61	0.23	2.70	310.	9.1	290.9	5.5
10	01	01	1	12	97.1	0.281	1.058	0.008	421.	357.	-19.7	0.19	0.61	0.22	2.20	357.	9.1	293.1	5.5
10	01	01	1	13	92.2	0.279	1.117	0.008	523.	354.	-20.4	0.19	0.61	0.22	2.20	356.	9.1	293.8	5.5
10	01	01	1	14	77.6	0.275	1.102	0.008	595.	347.	-23.2	0.19	0.61	0.23	2.20	50.	9.1	294.2	5.5
10	01	01	1	15	54.9	0.230	1.006	0.008	640.	266.	-19.2	0.19	0.61	0.27	1.80	53.	9.1	293.8	5.5

```
 10 01 01   1 16   12.3  0.206  0.613  0.008  648.  225.    -61.5  0.19   0.61
0.36    1.80   11.    9.1  292.5    5.5
 10 01 01   1 17   -3.6  0.087 -9.000 -9.000 -999.   71.     15.6  0.19   0.61
0.64    0.90  351.    9.1  290.4    5.5
 10 01 01   1 18   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  186.    9.1  287.5    5.5
 10 01 01   1 19   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  275.    9.1  285.9    5.5
 10 01 01   1 20   -1.2  0.064 -9.000 -9.000 -999.   39.     18.1  0.19   0.61
1.00    0.40  181.    9.1  285.4    5.5
 10 01 01   1 21   -7.8  0.125 -9.000 -9.000 -999.  106.     21.3  0.19   0.61
1.00    1.30  318.    9.1  284.9    5.5
 10 01 01   1 22   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  196.    9.1  283.1    5.5
 10 01 01   1 23   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  330.    9.1  281.4    5.5
 10 01 01   1 24   -7.9  0.125 -9.000 -9.000 -999.  106.     21.2  0.19   0.61
1.00    1.30  332.    9.1  280.9    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01    5.5 0 -999.  -99.00   282.6   99.0  -99.00  -99.00
 10 01 01 01    9.1 1  335.    1.30  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:49:43

                                  PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
                VOL6        ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF CO       IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - - - - - - - - - - - - - - - - - - - -
        483206.77   3733449.91       88.56097  (10122216)               483197.50
 3733502.14       53.38925  (11121915)
        483012.96   3733295.40      127.76622  (16010616)               482921.28
 3733279.91       60.30996  (16010616)
        483004.17   3733358.20      101.09721  (16010616)               482943.05
 3733222.13       59.79311  (16010616)
        483575.97   3733053.93       12.58305  (14103116)               483712.90
 3733038.66        8.99557  (16010716)
        483326.25   3732789.92       12.40575  (14111316)               483181.93
 3732838.68       19.15484  (14111116)
        483392.25   3732810.12       14.52443  (11111816)               482867.69
 3732851.00       13.38050  (11010316)
        483630.15   3732851.49        8.57346  (16011916)               482959.63
 3733603.27       41.46023  (16010516)
        482960.05   3733649.74       35.79194  (16010516)               482856.21
 3733634.25       21.03582  (16010516)
        482816.44   3733631.32       14.17897  (16010516)               483094.86
 3733654.35       23.16611  (14121116)
        483176.09   3733639.28       25.54368  (10120316)               483267.78
 3733641.79       21.44306  (10122216)
        483301.69   3733642.63       23.87102  (10122216)               483130.87
 3733648.85       24.30871  (14121116)
        483299.26   3733586.00       33.66952  (10122216)               483323.11
 3733603.44       29.76995  (10122216)
        483297.84   3733710.20       15.53633  (10122216)               483365.81
 3733652.19       21.72427  (10122216)
        483234.13   3733518.02       50.21848  (10122216)               483233.32
 3733502.41       58.00597  (10122216)
        483708.37   3733587.95        8.22797  (10012115)               483367.41
 3733628.17       23.41032  (10122216)
        483489.84   3733629.23       15.18556  (10020516)               483469.20
 3733603.25       17.34674  (10020516)
        483395.89   3733616.42       23.51511  (10020516)               482349.64
 3733526.99        4.97318  (16010616)
        482357.81   3733501.58        5.42463  (16010616)               482270.38
 3733723.63        3.56254  (11121216)
        482320.90   3733736.94        3.90715  (11121216)               482354.18
 3733907.26        4.10641  (10121515)
        482347.82   3733886.09        4.16321  (10121515)               482297.60
 3733821.35        3.66123  (10121515)
        482523.43   3734103.91        5.73767  (16010516)               482584.29
 3734097.50        7.26294  (16010516)
        484156.44   3733746.98        2.46996  (10121516)               484156.60
 3733885.12        2.83613  (10012115)
        484123.94   3733944.58        2.67988  (10012115)               483969.00
 3733570.22        3.77674  (10121516)
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                            *** THE   1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
                                INCLUDING SOURCE(S):   VOL1   , VOL2   , VOL3   , VOL4   , VOL5   ,
                                VOL6   ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                    ** CONC OF CO   IN MICROGRAMS/M**3
                  **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)
 - - -

```
       483708.37   3733587.95        1.78392  (14013116)               483367.41
 3733628.17        7.91287  (11030716)
       483489.84   3733629.23        4.84240  (11112416)               483469.20
 3733603.25        5.59443  (11112416)
       483395.89   3733616.42        7.55244  (11030716)               482349.64
 3733526.99        1.17002c (10122116)
       482357.81   3733501.58        1.27175c (10122116)               482270.38
 3733723.63        0.87135  (10121516)
       482320.90   3733736.94        0.99099  (10121516)               482354.18
 3733907.26        1.02136  (10121516)
       482347.82   3733886.09        1.03488  (10121516)               482297.60
 3733821.35        0.97335  (10121516)
       482523.43   3734103.91        1.29757  (16010516)               482584.29
 3734097.50        1.71090  (16010516)
       484156.44   3733746.98        0.64889  (10121516)               484156.60
 3733885.12        0.63551c (10122116)
       484123.94   3733944.58        0.67978c (10122116)               483969.00
 3733570.22        0.86801  (10121516)
1 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:49:43

                                  PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                                *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                   ** CONC OF CO       IN MICROGRAMS/M**3
              **

                                                        DATE
                                        NETWORK
GROUP ID                           AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS     127.76622  ON 16010616: AT (  483012.96,
3733295.40,   435.00,   435.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
1 *** AERMOD - VERSION 23132  ***   ***
```

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO   IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	NETWORK CONC OF TYPE	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	54.43393	ON 11100516:	AT (483206.77, 3733449.91, 435.56, 435.56, 2.00)	DC

 *** RECEPTOR TYPES: GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of   0 Fatal Error Message(s)
 A Total of   4 Warning Message(s)
 A Total of   2028 Informational Message(s)

 A Total of   43824 Hours Were Processed

 A Total of   978 Calm Hours Identified

```
 A Total of         1050 Missing Hours Identified (  2.40 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     168       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     168       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:
  14010101
 MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:
2 year gap

    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Construction
NOX LSTs\Construction NOX LSTs.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 1
   URBANOPT 2189641 County_of_Riverside
   POLLUTID NOX
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Construction NOX LSTs.err"
CO FINISHED
**
```

```
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
   SRCPARAM VOL1         0.0693972201     5.000    22.188     1.400
   SRCPARAM VOL2         0.0693972201     5.000    22.188     1.400
   SRCPARAM VOL3         0.0693972201     5.000    22.188     1.400
   SRCPARAM VOL4         0.0693972201     5.000    22.188     1.400
   SRCPARAM VOL5         0.0693972201     5.000    22.188     1.400
   SRCPARAM VOL6         0.0693972201     5.000    22.188     1.400
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Construction NOX LSTs.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
```

```
   PLOTFILE 1 ALL 1ST "CONSTRUCTION NOX LSTS.AD\01H1GALL.PLT" 31
   SUMMFILE "Construction NOX LSTs.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    North American Datum 1983
** DTMRGN   CONUS
** UNITS    m
** ZONE     11
** ZONEINX  0
**
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Construction
NOX LSTs\Construction NOX LSTs.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 1
   URBANOPT 2189641 County_of_Riverside
   POLLUTID NOX
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Construction NOX LSTs.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
```

```
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
   SRCPARAM VOL1         0.0693972201     5.000    22.188     1.400
   SRCPARAM VOL2         0.0693972201     5.000    22.188     1.400
   SRCPARAM VOL3         0.0693972201     5.000    22.188     1.400
   SRCPARAM VOL4         0.0693972201     5.000    22.188     1.400
   SRCPARAM VOL5         0.0693972201     5.000    22.188     1.400
   SRCPARAM VOL6         0.0693972201     5.000    22.188     1.400
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
```

```
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
```

```
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Construction NOX LSTs.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "CONSTRUCTION NOX LSTS.AD\01H1GALL.PLT" 31
   SUMMFILE "Construction NOX LSTs.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***
```

```
 --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     168       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     168       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 *********************************
 *** SETUP Finishes Successfully ***
 *********************************

 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:55:16

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                           ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses URBAN Dispersion Algorithm for the SBL for     6 Source(s),
        for Total of    1 Urban Area(s):
```

```
   Urban Population =   2189641.0 ;  Urban Roughness Length =  1.000 m
      * Urban Roughness Length of 1.0 Meter Used.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Accepts FLAGPOLE Receptor . Heights.
      * The User Specified a Pollutant Type of: NOX

 **Model Calculates  1 Short Term Average(s) of:   1-HR

 **This Run Includes:      6 Source(s);       1 Source Group(s); and      46
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      6 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER EMISSION RATE PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY	AIRCRAFT
VOL1	0	0.69397E-01	483130.5	3733373.1	435.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL2	0	0.69397E-01	483225.6	3733373.4	436.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL3	0	0.69397E-01	483130.5	3733277.6	435.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL4	0	0.69397E-01	483225.9	3733278.4	436.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL5	0	0.69397E-01	483131.6	3733211.8	435.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL6	0	0.69397E-01	483227.7	3733214.3	436.0	5.00	22.19	1.40	YES	HRDOW	NO

*** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID   SOURCE IDs
 -----------   ----------

  ALL   VOL1   , VOL2   , VOL3   , VOL4   , VOL5   ,
VOL6   ,

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP   SOURCE IDs
  --------   ---------   ----------

             2189641.   VOL1   , VOL2   , VOL3   , VOL4   ,
VOL5   , VOL6   ,

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL1   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                              DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

```
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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05/06/24
 *** AERMET - VERSION  16216 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL2          ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
*** AERMOD - VERSION 23132  ***   ***
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05/06/24
 *** AERMET - VERSION  16216 ***   ***
                        ***       09:55:16

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL3         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
*** AERMOD - VERSION 23132  ***   ***
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05/06/24
 *** AERMET - VERSION  16216 ***   ***
                        ***       09:55:16
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 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = VOL4   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
                                                    DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = VOL5   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
                                                    DAY OF WEEK = WEEKDAY

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:55:16

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL6          ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                            DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(483206.8, 3733449.9, 435.6, 435.6, 2.0); (483197.5, 3733502.1, 435.2, 435.2, 2.0);
(483013.0, 3733295.4, 435.0, 435.0, 2.0); (482921.3, 3733279.9, 435.0, 435.0, 2.0);
(483004.2, 3733358.2, 435.0, 435.0, 2.0); (482943.0, 3733222.1, 435.0, 435.0, 2.0);
(483576.0, 3733053.9, 437.0, 437.0, 2.0); (483712.9, 3733038.7, 437.4, 437.4, 2.0);
(483326.2, 3732789.9, 436.0, 436.0, 2.0); (483181.9, 3732838.7, 436.0, 436.0, 2.0);
(483392.2, 3732810.1, 436.7, 436.7, 2.0); (482867.7, 3732851.0, 435.0, 435.0, 2.0);
(483630.1, 3732851.5, 437.0, 437.0, 2.0); (482959.6, 3733603.3, 435.0, 435.0, 2.0);
(482960.0, 3733649.7, 435.0, 435.0, 2.0); (482856.2, 3733634.2, 435.0, 435.0, 2.0);
(482816.4, 3733631.3, 435.0, 435.0, 2.0); (483094.9, 3733654.3, 435.0, 435.0, 2.0);
(483176.1, 3733639.3, 436.0, 436.0, 2.0); (483267.8, 3733641.8, 436.0, 436.0, 2.0);
(483301.7, 3733642.6, 436.0, 436.0, 2.0); (483130.9, 3733648.8, 435.0, 435.0, 2.0);
(483299.3, 3733586.0, 436.0, 436.0, 2.0); (483323.1, 3733603.4, 436.0, 436.0, 2.0);
(483297.8, 3733710.2, 436.0, 436.0, 2.0); (483365.8, 3733652.2, 436.0, 436.0, 2.0);
(483234.1, 3733518.0, 436.0, 436.0, 2.0); (483233.3, 3733502.4, 436.0, 436.0, 2.0);
(483708.4, 3733587.9, 438.0, 438.0, 2.0); (483367.4,

3733628.2,   436.0,   436.0,   2.0);
     (483489.8, 3733629.2,   437.0,   437.0,   2.0);   (483469.2,
3733603.2,   437.0,   437.0,   2.0);
     (483395.9, 3733616.4,   436.0,   436.0,   2.0);   (482349.6,
3733527.0,   434.0,   434.0,   2.0);
     (482357.8, 3733501.6,   434.0,   434.0,   2.0);   (482270.4,
3733723.6,   433.0,   433.0,   2.0);
     (482320.9, 3733736.9,   433.0,   433.0,   2.0);   (482354.2,
3733907.3,   433.0,   433.0,   2.0);
     (482347.8, 3733886.1,   433.0,   433.0,   2.0);   (482297.6,
3733821.3,   433.0,   433.0,   2.0);
     (482523.4, 3734103.9,   433.3,   433.3,   2.0);   (482584.3,
3734097.5,   434.0,   434.0,   2.0);
     (484156.4, 3733747.0,   441.0,   441.0,   2.0);   (484156.6,
3733885.1,   441.5,   441.5,   2.0);
     (484123.9, 3733944.6,   441.1,   441.1,   2.0);   (483969.0,
3733570.2,   439.2,   439.2,   2.0);

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                                          *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                              (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: PERI_V9_ADJU\PERI_v9.SFC
Met Version: 16216
Profile file: PERI_V9_ADJU\PERI_v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 3171 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN

Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-7.9	0.125	-9.000	-9.000	-999.	106.	21.2	0.19	0.61	1.00	1.30	335.	9.1	282.5	5.5
10	01	01	1	02	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	142.	9.1	280.9	5.5
10	01	01	1	03	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	324.	9.1	280.4	5.5
10	01	01	1	04	-1.3	0.064	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	294.	9.1	278.8	5.5
10	01	01	1	05	-3.9	0.088	-9.000	-9.000	-999.	62.	15.0	0.19	0.61	1.00	0.90	205.	9.1	278.1	5.5
10	01	01	1	06	-1.3	0.065	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	3.	9.1	277.0	5.5
10	01	01	1	07	-8.0	0.125	-9.000	-9.000	-999.	106.	21.0	0.19	0.61						

```
1.00    1.30   99.    9.1  277.0    5.5
 10 01 01   1 08   -3.3  0.086 -9.000 -9.000 -999.   61.     16.8  0.19   0.61
0.54    0.90  319.    9.1  278.8    5.5
 10 01 01   1 09   20.1  0.128  0.307  0.010   49.  110.     -9.0  0.19   0.61
0.33    0.90  239.    9.1  284.2    5.5
 10 01 01   1 10   56.7  0.087  0.560  0.010  107.   62.     -1.0  0.19   0.61
0.26    0.40  188.    9.1  289.2    5.5
 10 01 01   1 11   81.5  0.323  0.867  0.008  277.  441.    -35.9  0.19   0.61
0.23    2.70  310.    9.1  290.9    5.5
 10 01 01   1 12   97.1  0.281  1.058  0.008  421.  357.    -19.7  0.19   0.61
0.22    2.20  357.    9.1  293.1    5.5
 10 01 01   1 13   92.2  0.279  1.117  0.008  523.  354.    -20.4  0.19   0.61
0.22    2.20  356.    9.1  293.8    5.5
 10 01 01   1 14   77.6  0.275  1.102  0.008  595.  347.    -23.2  0.19   0.61
0.23    2.20   50.    9.1  294.2    5.5
 10 01 01   1 15   54.9  0.230  1.006  0.008  640.  266.    -19.2  0.19   0.61
0.27    1.80   53.    9.1  293.8    5.5
 10 01 01   1 16   12.3  0.206  0.613  0.008  648.  225.    -61.5  0.19   0.61
0.36    1.80   11.    9.1  292.5    5.5
 10 01 01   1 17   -3.6  0.087 -9.000 -9.000 -999.   71.     15.6  0.19   0.61
0.64    0.90  351.    9.1  290.4    5.5
 10 01 01   1 18   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  186.    9.1  287.5    5.5
 10 01 01   1 19   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  275.    9.1  285.9    5.5
 10 01 01   1 20   -1.2  0.064 -9.000 -9.000 -999.   39.     18.1  0.19   0.61
1.00    0.40  181.    9.1  285.4    5.5
 10 01 01   1 21   -7.8  0.125 -9.000 -9.000 -999.  106.     21.3  0.19   0.61
1.00    1.30  318.    9.1  284.9    5.5
 10 01 01   1 22   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  196.    9.1  283.1    5.5
 10 01 01   1 23   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  330.    9.1  281.4    5.5
 10 01 01   1 24   -7.9  0.125 -9.000 -9.000 -999.  106.     21.2  0.19   0.61
1.00    1.30  332.    9.1  280.9    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01    5.5 0 -999.  -99.00   282.6   99.0  -99.00  -99.00
 10 01 01 01    9.1 1  335.    1.30  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       09:55:16

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```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL1 , VOL2 , VOL3 , VOL4 , VOL5 ,
VOL6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF NOX IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
483206.77	3733449.91	43.93986	(10122216)	483197.50	3733502.14	26.48928	(11121915)
483012.96	3733295.40	63.39170	(16010616)	482921.28	3733279.91	29.92302	(16010616)
483004.17	3733358.20	50.15977	(16010616)	482943.05	3733222.13	29.66658	(16010616)
483575.97	3733053.93	6.24313	(14103116)	483712.90	3733038.66	4.46319	(16010716)
483326.25	3732789.92	6.15516	(14111316)	483181.93	3732838.68	9.50375	(14111116)
483392.25	3732810.12	7.20635	(11111816)	482867.69	3732851.00	6.63879	(11010316)
483630.15	3732851.49	4.25376	(16011916)	482959.63	3733603.27	20.57065	(16010516)
482960.05	3733649.74	17.75831	(16010516)	482856.21	3733634.25	10.43700	(16010516)
482816.44	3733631.32	7.03495	(16010516)	483094.86	3733654.35	11.49395	(14121116)
483176.09	3733639.28	12.67359	(10120316)	483267.78	3733641.79	10.63906	(10122216)
483301.69	3733642.63	11.84370	(10122216)	483130.87	3733648.85	12.06086	(14121116)
483299.26	3733586.00	16.70526	(10122216)	483323.11	3733603.44	14.77048	(10122216)
483297.84	3733710.20	7.70841	(10122216)	483365.81	3733652.19	10.77858	(10122216)
483234.13	3733518.02	24.91609	(10122216)	483233.32	3733502.41	28.77988	(10122216)
483708.37	3733587.95	4.08234	(10012115)	483367.41	3733628.17	11.61512	(10122216)
483489.84	3733629.23	7.53438	(10020516)	483469.20	3733603.25	8.60665	(10020516)

```
       483395.89   3733616.42       11.66711  (10020516)                482349.64
 3733526.99        2.46746  (16010616)
       482357.81   3733501.58        2.69145  (16010616)                482270.38
 3733723.63        1.76757  (11121216)
       482320.90   3733736.94        1.93855  (11121216)                482354.18
 3733907.26        2.03741  (10121515)
       482347.82   3733886.09        2.06559  (10121515)                482297.60
 3733821.35        1.81653  (10121515)
       482523.43   3734103.91        2.84677  (16010516)                482584.29
 3734097.50        3.60354  (16010516)
       484156.44   3733746.98        1.22548  (10121516)                484156.60
 3733885.12        1.40716  (10012115)
       484123.94   3733944.58        1.32963  (10012115)                483969.00
 3733570.22        1.87384  (10121516)
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:55:16

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                                *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                   ** CONC OF NOX      IN MICROGRAMS/M**3
               **

                                                        DATE
                                        NETWORK
GROUP ID                           AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS      63.39170  ON 16010616: AT (  483012.96,
3733295.40,   435.00,   435.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:55:16
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            4 Warning Message(s)
 A Total of         2028 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of          978 Calm Hours Identified

 A Total of         1050 Missing Hours Identified (  2.40 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     168       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     168       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:
  14010101
 MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:
2 year gap

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Construction
PM10 LSTs\Construction PM10 LSTs.ADI
**
****************************************
**
**
****************************************
```

```
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 2189641 County_of_Riverside
   POLLUTID PM_10
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Construction PM10 LSTs.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
   LOCATION PAREA1       AREAPOLY   483081.605  3733420.412      435.000
** Source Parameters **
   SRCPARAM VOL1         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL2         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL3         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL4         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL5         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL6         0.0005379629     5.000    22.188     1.400
   SRCPARAM PAREA1       9.8065E-07     0.000         5     1.000
   AREAVERT PAREA1       483081.605 3733420.412 483083.417 3733164.443
   AREAVERT PAREA1       483276.526 3733166.073 483274.715 3733421.861
   AREAVERT PAREA1       483081.605 3733421.318
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

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** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT PAREA1       HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Construction PM10 LSTs.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST "CONSTRUCTION PM10 LSTS.AD\24H1GALL.PLT" 31
   SUMMFILE "Construction PM10 LSTs.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    North American Datum 1983
** DTMRGN   CONUS
** UNITS    m
** ZONE     11
** ZONEINX  0
**
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Construction
PM10 LSTs\Construction PM10 LSTs.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 2189641 County_of_Riverside
   POLLUTID PM_10
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Construction PM10 LSTs.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
   LOCATION PAREA1       AREAPOLY   483081.605  3733420.412      435.000
** Source Parameters **
   SRCPARAM VOL1         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL2         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL3         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL4         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL5         0.0005379629     5.000    22.188     1.400
```

```
   SRCPARAM VOL6         0.0005379629     5.000    22.188     1.400
   SRCPARAM PAREA1       9.8065E-07     0.000         5     1.000
   AREAVERT PAREA1       483081.605 3733420.412 483083.417 3733164.443
   AREAVERT PAREA1       483276.526 3733166.073 483274.715 3733421.861
   AREAVERT PAREA1       483081.605 3733421.318
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
```

```
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
```

```
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT PAREA1       HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**********************************
** AERMOD Receptor Pathway
**********************************
**
**
RE STARTING
   INCLUDED "Construction PM10 LSTs.rou"
RE FINISHED
**
**********************************
** AERMOD Meteorology Pathway
**********************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**********************************
** AERMOD Output Pathway
**********************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST "CONSTRUCTION PM10 LSTS.AD\24H1GALL.PLT" 31
```

```
   SUMMFILE "Construction PM10 LSTs.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     188       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     188       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                         ***       10:54:18

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
```

```
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses URBAN Dispersion Algorithm for the SBL for     7 Source(s),
        for Total of    1 Urban Area(s):
   Urban Population =   2189641.0 ;  Urban Roughness Length =  1.000 m
      * Urban Roughness Length of 1.0 Meter Used.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Accepts FLAGPOLE Receptor . Heights.
      * The User Specified a Pollutant Type of: PM_10

 **Model Calculates  1 Short Term Average(s) of:  24-HR

 **This Run Includes:      7 Source(s);       1 Source Group(s); and      46
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      6 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
```

```
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   Construction PM10 LSTs.err

 **File for Summary of Results:   Construction PM10 LSTs.sum

↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                        ***        10:54:18

                                   PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE   AIRCRAFT
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 VOL1             0   0.53796E-03  483130.5 3733373.1   435.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL2             0   0.53796E-03  483225.6 3733373.4   436.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL3             0   0.53796E-03  483130.5 3733277.6   435.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL4             0   0.53796E-03  483225.9 3733278.4   436.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL5             0   0.53796E-03  483131.6 3733211.8   435.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL6             0   0.53796E-03  483227.7 3733214.3   436.0     5.00    22.19
1.40     YES   HRDOW            NO
↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
```

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ	URBAN SOURCE	EMISSION RATE SCALAR VARY BY	AIRCRAFT
PAREA1	0	0.98065E-06	483081.6	3733420.4	435.0	0.00	5	1.00	YES	HRDOW	NO

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	VOL1 , VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , PAREA1 ,

*** SOURCE IDs DEFINED AS URBAN SOURCES

             2189641.   VOL1   , VOL2   , VOL3   , VOL4   ,
VOL5   , VOL6   , PAREA1   ,

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL1   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL2 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL3 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        10:54:18

                                  PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL4         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
```

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14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        10:54:18

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL5          ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                            DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL6   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = PAREA1   ; SOURCE TYPE = AREAPOLY :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

3733603.3,   435.0,   435.0,   2.0);
     (482960.0, 3733649.7,   435.0,   435.0,   2.0);   (482856.2,
3733634.2,   435.0,   435.0,   2.0);
     (482816.4, 3733631.3,   435.0,   435.0,   2.0);   (483094.9,
3733654.3,   435.0,   435.0,   2.0);
     (483176.1, 3733639.3,   436.0,   436.0,   2.0);   (483267.8,
3733641.8,   436.0,   436.0,   2.0);
     (483301.7, 3733642.6,   436.0,   436.0,   2.0);   (483130.9,
3733648.8,   435.0,   435.0,   2.0);
     (483299.3, 3733586.0,   436.0,   436.0,   2.0);   (483323.1,
3733603.4,   436.0,   436.0,   2.0);
     (483297.8, 3733710.2,   436.0,   436.0,   2.0);   (483365.8,
3733652.2,   436.0,   436.0,   2.0);
     (483234.1, 3733518.0,   436.0,   436.0,   2.0);   (483233.3,
3733502.4,   436.0,   436.0,   2.0);
     (483708.4, 3733587.9,   438.0,   438.0,   2.0);   (483367.4,
3733628.2,   436.0,   436.0,   2.0);
     (483489.8, 3733629.2,   437.0,   437.0,   2.0);   (483469.2,
3733603.2,   437.0,   437.0,   2.0);
     (483395.9, 3733616.4,   436.0,   436.0,   2.0);   (482349.6,
3733527.0,   434.0,   434.0,   2.0);
     (482357.8, 3733501.6,   434.0,   434.0,   2.0);   (482270.4,
3733723.6,   433.0,   433.0,   2.0);
     (482320.9, 3733736.9,   433.0,   433.0,   2.0);   (482354.2,
3733907.3,   433.0,   433.0,   2.0);
     (482347.8, 3733886.1,   433.0,   433.0,   2.0);   (482297.6,
3733821.3,   433.0,   433.0,   2.0);
     (482523.4, 3734103.9,   433.3,   433.3,   2.0);   (482584.3,
3734097.5,   434.0,   434.0,   2.0);
     (484156.4, 3733747.0,   441.0,   441.0,   2.0);   (484156.6,
3733885.1,   441.5,   441.5,   2.0);
     (484123.9, 3733944.6,   441.1,   441.1,   2.0);   (483969.0,
3733570.2,   439.2,   439.2,   2.0);

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                                              *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                                  (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: PERI_V9_ADJU\PERI_v9.SFC
Met Version: 16216
Profile file: PERI_V9_ADJU\PERI_v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 3171 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN

Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN

```
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - -
```

```
1.00    1.30  332.    9.1  280.9    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01    5.5 0 -999.  -99.00   282.6   99.0  -99.00  -99.00
 10 01 01 01    9.1 1  335.    1.30  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 23132  ***   ***
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05/06/24
 *** AERMET - VERSION  16216 ***   ***
                        ***        10:54:18

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
                VOL6        , PAREA1      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        483206.77   3733449.91        1.89915c (10121724)               483197.50
 3733502.14        1.07424c (10121724)
        483012.96   3733295.40        1.01029  (10121524)               482921.28
 3733279.91        0.41909  (10121524)
        483004.17   3733358.20        1.00226  (10121524)               482943.05
 3733222.13        0.41423c (14012424)
        483575.97   3733053.93        0.11873  (15111624)               483712.90
 3733038.66        0.07018  (15121424)
        483326.25   3732789.92        0.21243  (16122224)               483181.93
 3732838.68        0.23747  (16122224)
        483392.25   3732810.12        0.18078  (14120124)               482867.69
 3732851.00        0.11402c (15012824)
        483630.15   3732851.49        0.08782c (16011924)               482959.63
 3733603.27        0.34726  (16010524)
        482960.05   3733649.74        0.33499  (16010524)               482856.21
 3733634.25        0.12988  (11051724)
```

```
       482816.44   3733631.32        0.11326  (10121524)               483094.86
 3733654.35        0.33622  (16010524)
       483176.09   3733639.28        0.48473c (10121724)               483267.78
 3733641.79        0.36052c (10121724)
       483301.69   3733642.63        0.27846c (10020924)               483130.87
 3733648.85        0.39244c (10121724)
       483299.26   3733586.00        0.36767c (10020924)               483323.11
 3733603.44        0.29036c (10020924)
       483297.84   3733710.20        0.22102c (10121724)               483365.81
 3733652.19        0.21541c (11030724)
       483234.13   3733518.02        0.87517c (10121724)               483233.32
 3733502.41        0.99451c (10121724)
       483708.37   3733587.95        0.06136  (14013124)               483367.41
 3733628.17        0.24025c (11030724)
       483489.84   3733629.23        0.13993c (10033124)               483469.20
 3733603.25        0.15821c (10033124)
       483395.89   3733616.42        0.22652c (11030724)               482349.64
 3733526.99        0.11352  (10121524)
       482357.81   3733501.58        0.10308  (10121524)               482270.38
 3733723.63        0.11714  (10121524)
       482320.90   3733736.94        0.11342  (10121524)               482354.18
 3733907.26        0.04054  (10121524)
       482347.82   3733886.09        0.04785  (10121524)               482297.60
 3733821.35        0.07809  (10121524)
       482523.43   3734103.91        0.04572c (14010324)               482584.29
 3734097.50        0.04744b (14120224)
       484156.44   3733746.98        0.02228c (10012924)               484156.60
 3733885.12        0.02400  (10010624)
       484123.94   3733944.58        0.02405  (10010624)               483969.00
 3733570.22        0.03534c (10012924)
 *** AERMOD - VERSION 23132  ***   ***
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05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        10:54:18

                                  PAGE  17
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                                *** THE SUMMARY OF HIGHEST 24-HR
RESULTS ***


                                   ** CONC OF PM_10    IN MICROGRAMS/M**3
              **

                                                        DATE
                                        NETWORK
GROUP ID                           AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
```

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- - - -
```

```
    *** AERMOD Finishes Successfully ***
    ************************************
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Construction
PM25 LSTs\Construction PM25 LSTs.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 2189641 County_of_Riverside
   POLLUTID PM_2.5
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Construction PM25 LSTs.err"
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
   LOCATION PAREA1       AREAPOLY   483081.605  3733420.412      435.000
** Source Parameters **
   SRCPARAM VOL1         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL2         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL3         0.0005379629     5.000    22.188     1.400
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   SRCPARAM VOL4         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL5         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL6         0.0005379629     5.000    22.188     1.400
   SRCPARAM PAREA1       3.2592E-07     0.000         5     1.000
   AREAVERT PAREA1       483081.605 3733420.412 483083.417 3733164.443
   AREAVERT PAREA1       483276.526 3733166.073 483274.715 3733421.861
   AREAVERT PAREA1       483081.605 3733421.318
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT PAREA1       HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Construction PM25 LSTs.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
```

```
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST "CONSTRUCTION PM25 LSTS.AD\24H1GALL.PLT" 31
   SUMMFILE "Construction PM25 LSTs.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    North American Datum 1983
** DTMRGN   CONUS
** UNITS    m
** ZONE     11
** ZONEINX  0
**
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Construction
PM25 LSTs\Construction PM25 LSTs.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 2189641 County_of_Riverside
   POLLUTID PM_2.5
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Construction PM25 LSTs.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
```

```
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
   LOCATION PAREA1       AREAPOLY   483081.605  3733420.412      435.000
** Source Parameters **
   SRCPARAM VOL1         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL2         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL3         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL4         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL5         0.0005379629     5.000    22.188     1.400
   SRCPARAM VOL6         0.0005379629     5.000    22.188     1.400
   SRCPARAM PAREA1       3.2592E-07     0.000         5     1.000
   AREAVERT PAREA1       483081.605 3733420.412 483083.417 3733164.443
   AREAVERT PAREA1       483276.526 3733166.073 483274.715 3733421.861
   AREAVERT PAREA1       483081.605 3733421.318
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

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** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT PAREA1       HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**********************************
** AERMOD Receptor Pathway
**********************************
**
**
RE STARTING
   INCLUDED "Construction PM25 LSTs.rou"
RE FINISHED
**
**********************************
** AERMOD Meteorology Pathway
**********************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
```

```
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST "CONSTRUCTION PM25 LSTS.AD\24H1GALL.PLT" 31
   SUMMFILE "Construction PM25 LSTs.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     188       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     188       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

↟ *** AERMOD - VERSION 23132  ***   ***
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 *** AERMET - VERSION  16216 ***   ***
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                                 PAGE   1
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                          ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses URBAN Dispersion Algorithm for the SBL for     7 Source(s),
        for Total of    1 Urban Area(s):
   Urban Population =   2189641.0 ;  Urban Roughness Length =  1.000 m
      * Urban Roughness Length of 1.0 Meter Used.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Accepts FLAGPOLE Receptor . Heights.
      * The User Specified a Pollutant Type of: PM_2.5

 **Model Calculates  1 Short Term Average(s) of:  24-HR

 **This Run Includes:      7 Source(s);       1 Source Group(s); and      46
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      6 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
```

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 442.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ;
Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.5 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: Construction PM25 LSTs.err

**File for Summary of Results: Construction PM25 LSTs.sum

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY	INIT. SZ	URBAN SOURCE	EMISSION RATE SCALAR VARY BY	AIRCRAFT

```
 VOL1             0   0.53796E-03  483130.5 3733373.1   435.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL2             0   0.53796E-03  483225.6 3733373.4   436.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL3             0   0.53796E-03  483130.5 3733277.6   435.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL4             0   0.53796E-03  483225.9 3733278.4   436.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL5             0   0.53796E-03  483131.6 3733211.8   435.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL6             0   0.53796E-03  483227.7 3733214.3   436.0     5.00    22.19
1.40     YES   HRDOW            NO
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*


                                                *** AREAPOLY SOURCE DATA ***

              NUMBER EMISSION RATE   LOCATION OF AREA  BASE     RELEASE  NUMBER
  INIT.   URBAN  EMISSION RATE    AIRCRAFT
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF VERTS.
   SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 PAREA1           0   0.32592E-06  483081.6 3733420.4   435.0     0.00       5
   1.00     YES   HRDOW            NO
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*


                                               *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                          SOURCE IDs
```

                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP   SOURCE IDs
  --------   ---------   ----------

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL1   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                            DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL2   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                            DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                            DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                            DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL3 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
 SOURCE ID = VOL4          ; SOURCE TYPE = VOLUME    :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL5          ; SOURCE TYPE = VOLUME    :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL6   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

```
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/06/24
 *** AERMET - VERSION  16216 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = PAREA1       ; SOURCE TYPE = AREAPOLY :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                                  DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                              *** DISCRETE CARTESIAN RECEPTORS ***
```

(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(483206.8, 3733449.9, 435.6, 435.6, 2.0); (483197.5, 3733502.1, 435.2, 435.2, 2.0);
(483013.0, 3733295.4, 435.0, 435.0, 2.0); (482921.3, 3733279.9, 435.0, 435.0, 2.0);
(483004.2, 3733358.2, 435.0, 435.0, 2.0); (482943.0, 3733222.1, 435.0, 435.0, 2.0);
(483576.0, 3733053.9, 437.0, 437.0, 2.0); (483712.9, 3733038.7, 437.4, 437.4, 2.0);
(483326.2, 3732789.9, 436.0, 436.0, 2.0); (483181.9, 3732838.7, 436.0, 436.0, 2.0);
(483392.2, 3732810.1, 436.7, 436.7, 2.0); (482867.7, 3732851.0, 435.0, 435.0, 2.0);
(483630.1, 3732851.5, 437.0, 437.0, 2.0); (482959.6, 3733603.3, 435.0, 435.0, 2.0);
(482960.0, 3733649.7, 435.0, 435.0, 2.0); (482856.2, 3733634.2, 435.0, 435.0, 2.0);
(482816.4, 3733631.3, 435.0, 435.0, 2.0); (483094.9, 3733654.3, 435.0, 435.0, 2.0);
(483176.1, 3733639.3, 436.0, 436.0, 2.0); (483267.8, 3733641.8, 436.0, 436.0, 2.0);
(483301.7, 3733642.6, 436.0, 436.0, 2.0); (483130.9, 3733648.8, 435.0, 435.0, 2.0);
(483299.3, 3733586.0, 436.0, 436.0, 2.0); (483323.1, 3733603.4, 436.0, 436.0, 2.0);
(483297.8, 3733710.2, 436.0, 436.0, 2.0); (483365.8, 3733652.2, 436.0, 436.0, 2.0);
(483234.1, 3733518.0, 436.0, 436.0, 2.0); (483233.3, 3733502.4, 436.0, 436.0, 2.0);
(483708.4, 3733587.9, 438.0, 438.0, 2.0); (483367.4, 3733628.2, 436.0, 436.0, 2.0);
(483489.8, 3733629.2, 437.0, 437.0, 2.0); (483469.2, 3733603.2, 437.0, 437.0, 2.0);
(483395.9, 3733616.4, 436.0, 436.0, 2.0); (482349.6, 3733527.0, 434.0, 434.0, 2.0);
(482357.8, 3733501.6, 434.0, 434.0, 2.0); (482270.4, 3733723.6, 433.0, 433.0, 2.0);
(482320.9, 3733736.9, 433.0, 433.0, 2.0); (482354.2, 3733907.3, 433.0, 433.0, 2.0);
(482347.8, 3733886.1, 433.0, 433.0, 2.0); (482297.6, 3733821.3, 433.0, 433.0, 2.0);
(482523.4, 3734103.9, 433.3, 433.3, 2.0); (482584.3, 3734097.5, 434.0, 434.0, 2.0);
(484156.4, 3733747.0, 441.0, 441.0, 2.0); (484156.6, 3733885.1, 441.5, 441.5, 2.0);
(484123.9, 3733944.6, 441.1, 441.1, 2.0); (483969.0, 3733570.2, 439.2, 439.2, 2.0);

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54,   3.09,   5.14,   8.23,
10.80,

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: PERI_V9_ADJU\PERI_v9.SFC
Met Version: 16216
Profile file: PERI_V9_ADJU\PERI_v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 3171 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN

Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-7.9	0.125	-9.000	-9.000	-999.	106.	21.2	0.19	0.61	1.00	1.30	335.	9.1	282.5	5.5
10	01	01	1	02	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	142.	9.1	280.9	5.5
10	01	01	1	03	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	324.	9.1	280.4	5.5
10	01	01	1	04	-1.3	0.064	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	294.	9.1	278.8	5.5
10	01	01	1	05	-3.9	0.088	-9.000	-9.000	-999.	62.	15.0	0.19	0.61	1.00	0.90	205.	9.1	278.1	5.5
10	01	01	1	06	-1.3	0.065	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	3.	9.1	277.0	5.5
10	01	01	1	07	-8.0	0.125	-9.000	-9.000	-999.	106.	21.0	0.19	0.61	1.00	1.30	99.	9.1	277.0	5.5
10	01	01	1	08	-3.3	0.086	-9.000	-9.000	-999.	61.	16.8	0.19	0.61	0.54	0.90	319.	9.1	278.8	5.5
10	01	01	1	09	20.1	0.128	0.307	0.010	49.	110.	-9.0	0.19	0.61	0.33	0.90	239.	9.1	284.2	5.5
10	01	01	1	10	56.7	0.087	0.560	0.010	107.	62.	-1.0	0.19	0.61	0.26	0.40	188.	9.1	289.2	5.5
10	01	01	1	11	81.5	0.323	0.867	0.008	277.	441.	-35.9	0.19	0.61	0.23	2.70	310.	9.1	290.9	5.5
10	01	01	1	12	97.1	0.281	1.058	0.008	421.	357.	-19.7	0.19	0.61	0.22	2.20	357.	9.1	293.1	5.5
10	01	01	1	13	92.2	0.279	1.117	0.008	523.	354.	-20.4	0.19	0.61	0.22	2.20	356.	9.1	293.8	5.5
10	01	01	1	14	77.6	0.275	1.102	0.008	595.	347.	-23.2	0.19	0.61	0.23	2.20	50.	9.1	294.2	5.5
10	01	01	1	15	54.9	0.230	1.006	0.008	640.	266.	-19.2	0.19	0.61	0.27	1.80	53.	9.1	293.8	5.5
10	01	01	1	16	12.3	0.206	0.613	0.008	648.	225.	-61.5	0.19	0.61						

```
0.36    1.80   11.    9.1  292.5    5.5
 10 01 01   1 17   -3.6  0.087 -9.000 -9.000 -999.   71.     15.6  0.19   0.61
0.64    0.90  351.    9.1  290.4    5.5
 10 01 01   1 18   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  186.    9.1  287.5    5.5
 10 01 01   1 19   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  275.    9.1  285.9    5.5
 10 01 01   1 20   -1.2  0.064 -9.000 -9.000 -999.   39.     18.1  0.19   0.61
1.00    0.40  181.    9.1  285.4    5.5
 10 01 01   1 21   -7.8  0.125 -9.000 -9.000 -999.  106.     21.3  0.19   0.61
1.00    1.30  318.    9.1  284.9    5.5
 10 01 01   1 22   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  196.    9.1  283.1    5.5
 10 01 01   1 23   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  330.    9.1  281.4    5.5
 10 01 01   1 24   -7.9  0.125 -9.000 -9.000 -999.  106.     21.2  0.19   0.61
1.00    1.30  332.    9.1  280.9    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01    5.5 0 -999.  -99.00   282.6   99.0  -99.00  -99.00
 10 01 01 01    9.1 1  335.    1.30  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        11:16:03

                                  PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
                VOL6        , PAREA1      ,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                    ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
       483206.77   3733449.91        0.66344c (10121724)               483197.50
 3733502.14        0.37430c (10121724)
       483012.96   3733295.40        0.35824  (10121524)               482921.28
 3733279.91        0.14765  (10121524)
       483004.17   3733358.20        0.35265  (10121524)               482943.05
 3733222.13        0.15042c (14012424)
       483575.97   3733053.93        0.04274  (15121424)               483712.90
 3733038.66        0.02528  (15121424)
       483326.25   3732789.92        0.07335  (16122224)               483181.93
 3732838.68        0.08323  (16122224)
       483392.25   3732810.12        0.06518  (14120124)               482867.69
 3732851.00        0.04087c (15012824)
       483630.15   3732851.49        0.03208c (16011924)               482959.63
 3733603.27        0.12597  (16010524)
       482960.05   3733649.74        0.12097  (16010524)               482856.21
 3733634.25        0.04674  (11051724)
       482816.44   3733631.32        0.04052  (10121524)               483094.86
 3733654.35        0.12221  (16010524)
       483176.09   3733639.28        0.16722c (10121724)               483267.78
 3733641.79        0.12520c (10121724)
       483301.69   3733642.63        0.10009c (10020924)               483130.87
 3733648.85        0.13575c (10121724)
       483299.26   3733586.00        0.13208c (10020924)               483323.11
 3733603.44        0.10449c (10020924)
       483297.84   3733710.20        0.07699c (10121724)               483365.81
 3733652.19        0.07795c (11030724)
       483234.13   3733518.02        0.30484c (10121724)               483233.32
 3733502.41        0.34676c (10121724)
       483708.37   3733587.95        0.02192  (14013124)               483367.41
 3733628.17        0.08691c (11030724)
       483489.84   3733629.23        0.05077c (10033124)               483469.20
 3733603.25        0.05746c (10033124)
       483395.89   3733616.42        0.08203c (11030724)               482349.64
 3733526.99        0.03855  (10121524)
       482357.81   3733501.58        0.03510  (10121524)               482270.38
 3733723.63        0.03968  (10121524)
       482320.90   3733736.94        0.03854  (10121524)               482354.18
 3733907.26        0.01435  (10121524)
       482347.82   3733886.09        0.01679  (10121524)               482297.60
 3733821.35        0.02679  (10121524)
       482523.43   3734103.91        0.01555c (14010324)               482584.29
 3734097.50        0.01636b (14120224)
       484156.44   3733746.98        0.00792c (10012924)               484156.60
 3733885.12        0.00833  (10010624)
       484123.94   3733944.58        0.00835  (10010624)               483969.00
 3733570.22        0.01252c (10012924)
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
```

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	NETWORK CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH	1ST HIGH VALUE IS	0.66344c ON 10121724:	AT (483206.77, 3733449.91, 435.56, 435.56, 2.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 4 Warning Message(s)
A Total of 2028 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 978 Calm Hours Identified

A Total of 1050 Missing Hours Identified (2.40 Percent)

```
    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     188       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     188       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:
  14010101
 MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:
2 year gap

    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
**
*****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Operational
CO LSTs\Operational CO LSTs.ADI
**
*****************************************
**
**
*****************************************
** AERMOD Control Pathway
*****************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 1 8
   URBANOPT 2189641 County_of_Riverside
   POLLUTID CO
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Operational CO LSTs.err"
CO FINISHED
**
*****************************************
** AERMOD Source Pathway
*****************************************
```

```
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
   SRCPARAM VOL1         0.0148803497     5.000    22.188     1.400
   SRCPARAM VOL2         0.0148803497     5.000    22.188     1.400
   SRCPARAM VOL3         0.0148803497     5.000    22.188     1.400
   SRCPARAM VOL4         0.0148803497     5.000    22.188     1.400
   SRCPARAM VOL5         0.0148803497     5.000    22.188     1.400
   SRCPARAM VOL6         0.0148803497     5.000    22.188     1.400
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
```

```
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Operational CO LSTs.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "OPERATIONAL CO LSTS.AD\01H1GALL.PLT" 31
   PLOTFILE 8 ALL 1ST "OPERATIONAL CO LSTS.AD\08H1GALL.PLT" 32
```

```
   SUMMFILE "Operational CO LSTs.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    North American Datum 1983
** DTMRGN   CONUS
** UNITS    m
** ZONE     11
** ZONEINX  0
**
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Operational
CO LSTs\Operational CO LSTs.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 1 8
   URBANOPT 2189641 County_of_Riverside
   POLLUTID CO
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Operational CO LSTs.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
```

```
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
   SRCPARAM VOL1         0.0148803497     5.000    22.188     1.400
   SRCPARAM VOL2         0.0148803497     5.000    22.188     1.400
   SRCPARAM VOL3         0.0148803497     5.000    22.188     1.400
   SRCPARAM VOL4         0.0148803497     5.000    22.188     1.400
   SRCPARAM VOL5         0.0148803497     5.000    22.188     1.400
   SRCPARAM VOL6         0.0148803497     5.000    22.188     1.400
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Operational CO LSTs.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "OPERATIONAL CO LSTS.AD\01H1GALL.PLT" 31
   PLOTFILE 8 ALL 1ST "OPERATIONAL CO LSTS.AD\08H1GALL.PLT" 32
   SUMMFILE "Operational CO LSTs.sum"
OU FINISHED
```

```
  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     168       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     168       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        11:33:26

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                          ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses URBAN Dispersion Algorithm for the SBL for     6 Source(s),
```

```
        for Total of    1 Urban Area(s):
   Urban Population =   2189641.0 ;  Urban Roughness Length =  1.000 m
      * Urban Roughness Length of 1.0 Meter Used.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Accepts FLAGPOLE Receptor . Heights.
      * The User Specified a Pollutant Type of: CO

 **Model Calculates  2 Short Term Average(s) of:   1-HR   8-HR

 **This Run Includes:      6 Source(s);       1 Source Group(s); and      46
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      6 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                 ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC) BY	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY	AIRCRAFT
VOL1	0	0.14880E-01	483130.5	3733373.1	435.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL2	0	0.14880E-01	483225.6	3733373.4	436.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL3	0	0.14880E-01	483130.5	3733277.6	435.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL4	0	0.14880E-01	483225.9	3733278.4	436.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL5	0	0.14880E-01	483131.6	3733211.8	435.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL6	0	0.14880E-01	483227.7	3733214.3	436.0	5.00	22.19	1.40	YES	HRDOW	NO

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL1 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR				

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       11:33:26

                                  PAGE   6
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL2         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL3   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL4 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL5 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL6   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

```
     ( 483708.4, 3733587.9,     438.0,     438.0,       2.0);         ( 483367.4,
3733628.2,     436.0,     436.0,       2.0);
     ( 483489.8, 3733629.2,     437.0,     437.0,       2.0);         ( 483469.2,
3733603.2,     437.0,     437.0,       2.0);
     ( 483395.9, 3733616.4,     436.0,     436.0,       2.0);         ( 482349.6,
3733527.0,     434.0,     434.0,       2.0);
     ( 482357.8, 3733501.6,     434.0,     434.0,       2.0);         ( 482270.4,
3733723.6,     433.0,     433.0,       2.0);
     ( 482320.9, 3733736.9,     433.0,     433.0,       2.0);         ( 482354.2,
3733907.3,     433.0,     433.0,       2.0);
     ( 482347.8, 3733886.1,     433.0,     433.0,       2.0);         ( 482297.6,
3733821.3,     433.0,     433.0,       2.0);
     ( 482523.4, 3734103.9,     433.3,     433.3,       2.0);         ( 482584.3,
3734097.5,     434.0,     434.0,       2.0);
     ( 484156.4, 3733747.0,     441.0,     441.0,       2.0);         ( 484156.6,
3733885.1,     441.5,     441.5,       2.0);
     ( 484123.9, 3733944.6,     441.1,     441.1,       2.0);         ( 483969.0,
3733570.2,     439.2,     439.2,       2.0);
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       11:33:26

                                 PAGE  12
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                          *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                              (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

               NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: PERI_V9_ADJU\PERI_v9.SFC
Met Version: 16216
Profile file: PERI_V9_ADJU\PERI_v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 3171 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN

Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-7.9	0.125	-9.000	-9.000	-999.	106.	21.2	0.19	0.61	1.00	1.30	335.	9.1	282.5	5.5
10	01	01	1	02	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	142.	9.1	280.9	5.5
10	01	01	1	03	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	324.	9.1	280.4	5.5
10	01	01	1	04	-1.3	0.064	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	294.	9.1	278.8	5.5
10	01	01	1	05	-3.9	0.088	-9.000	-9.000	-999.	62.	15.0	0.19	0.61	1.00	0.90	205.	9.1	278.1	5.5
10	01	01	1	06	-1.3	0.065	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	3.	9.1	277.0	5.5

```
 10 01 01   1 07   -8.0  0.125 -9.000 -9.000 -999.  106.     21.0  0.19   0.61
1.00    1.30   99.    9.1  277.0    5.5
 10 01 01   1 08   -3.3  0.086 -9.000 -9.000 -999.   61.     16.8  0.19   0.61
0.54    0.90  319.    9.1  278.8    5.5
 10 01 01   1 09   20.1  0.128  0.307  0.010   49.  110.     -9.0  0.19   0.61
0.33    0.90  239.    9.1  284.2    5.5
 10 01 01   1 10   56.7  0.087  0.560  0.010  107.   62.     -1.0  0.19   0.61
0.26    0.40  188.    9.1  289.2    5.5
 10 01 01   1 11   81.5  0.323  0.867  0.008  277.  441.    -35.9  0.19   0.61
0.23    2.70  310.    9.1  290.9    5.5
 10 01 01   1 12   97.1  0.281  1.058  0.008  421.  357.    -19.7  0.19   0.61
0.22    2.20  357.    9.1  293.1    5.5
 10 01 01   1 13   92.2  0.279  1.117  0.008  523.  354.    -20.4  0.19   0.61
0.22    2.20  356.    9.1  293.8    5.5
 10 01 01   1 14   77.6  0.275  1.102  0.008  595.  347.    -23.2  0.19   0.61
0.23    2.20   50.    9.1  294.2    5.5
 10 01 01   1 15   54.9  0.230  1.006  0.008  640.  266.    -19.2  0.19   0.61
0.27    1.80   53.    9.1  293.8    5.5
 10 01 01   1 16   12.3  0.206  0.613  0.008  648.  225.    -61.5  0.19   0.61
0.36    1.80   11.    9.1  292.5    5.5
 10 01 01   1 17   -3.6  0.087 -9.000 -9.000 -999.   71.     15.6  0.19   0.61
0.64    0.90  351.    9.1  290.4    5.5
 10 01 01   1 18   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  186.    9.1  287.5    5.5
 10 01 01   1 19   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  275.    9.1  285.9    5.5
 10 01 01   1 20   -1.2  0.064 -9.000 -9.000 -999.   39.     18.1  0.19   0.61
1.00    0.40  181.    9.1  285.4    5.5
 10 01 01   1 21   -7.8  0.125 -9.000 -9.000 -999.  106.     21.3  0.19   0.61
1.00    1.30  318.    9.1  284.9    5.5
 10 01 01   1 22   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  196.    9.1  283.1    5.5
 10 01 01   1 23   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  330.    9.1  281.4    5.5
 10 01 01   1 24   -7.9  0.125 -9.000 -9.000 -999.  106.     21.2  0.19   0.61
1.00    1.30  332.    9.1  280.9    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01    5.5 0 -999.  -99.00   282.6   99.0  -99.00  -99.00
 10 01 01 01    9.1 1  335.    1.30  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       11:33:26
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL1 , VOL2 , VOL3 , VOL4 , VOL5 , VOL6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
483206.77	3733449.91	9.42171	(10122216)	483197.50	3733502.14	5.67991	(11121915)
483012.96	3733295.40	13.59263	(16010616)	482921.28	3733279.91	6.41618	(16010616)
483004.17	3733358.20	10.75540	(16010616)	482943.05	3733222.13	6.36119	(16010616)
483575.97	3733053.93	1.33867	(14103116)	483712.90	3733038.66	0.95701	(16010716)
483326.25	3732789.92	1.31981	(14111316)	483181.93	3732838.68	2.03782	(14111116)
483392.25	3732810.12	1.54521	(11111816)	482867.69	3732851.00	1.42351	(11010316)
483630.15	3732851.49	0.91210	(16011916)	482959.63	3733603.27	4.41082	(16010516)
482960.05	3733649.74	3.80779	(16010516)	482856.21	3733634.25	2.23793	(16010516)
482816.44	3733631.32	1.50845	(16010516)	483094.86	3733654.35	2.46457	(14121116)
483176.09	3733639.28	2.71751	(10120316)	483267.78	3733641.79	2.28126	(10122216)
483301.69	3733642.63	2.53956	(10122216)	483130.87	3733648.85	2.58612	(14121116)
483299.26	3733586.00	3.58199	(10122216)	483323.11	3733603.44	3.16713	(10122216)
483297.84	3733710.20	1.65286	(10122216)	483365.81	3733652.19	2.31117	(10122216)
483234.13	3733518.02	5.34258	(10122216)	483233.32	3733502.41	6.17106	(10122216)
483708.37	3733587.95	0.87535	(10012115)	483367.41	3733628.17	2.49055	(10122216)
483489.84	3733629.23	1.61554	(10020516)	483469.20			

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL1 , VOL2 , VOL3 , VOL4 , VOL5 , VOL6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
483206.77	3733449.91	5.79105	(11100516)	483197.50	3733502.14	3.50813	(11100516)
483012.96	3733295.40	2.79266	(10121516)	482921.28	3733279.91	1.25717	(14120316)
483004.17	3733358.20	2.48344	(11121216)	482943.05	3733222.13	1.50655	(14120316)
483575.97	3733053.93	0.41246	(15121416)	483712.90	3733038.66	0.24342	(15121416)
483326.25	3732789.92	0.52862	(14120116)	483181.93	3732838.68	0.53536	(16122216)

```
       483392.25   3732810.12        0.63370  (14120116)               482867.69
 3732851.00        0.42971  (16121916)
       483630.15   3732851.49        0.32963  (16011916)               482959.63
 3733603.27        1.31250  (16010516)
       482960.05   3733649.74        1.19758  (16010516)               482856.21
 3733634.25        0.56542  (16010516)
       482816.44   3733631.32        0.39114  (11051716)               483094.86
 3733654.35        1.30118  (16010516)
       483176.09   3733639.28        1.45764  (11100516)               483267.78
 3733641.79        1.08334  (10100516)
       483301.69   3733642.63        0.95225  (10100516)               483130.87
 3733648.85        1.27025  (11100516)
       483299.26   3733586.00        1.21687  (10100516)               483323.11
 3733603.44        1.01456  (11030716)
       483297.84   3733710.20        0.73809  (10100516)               483365.81
 3733652.19        0.75707  (11030716)
       483234.13   3733518.02        2.72741  (11100516)               483233.32
 3733502.41        3.12492  (11100516)
       483708.37   3733587.95        0.18978  (14013116)               483367.41
 3733628.17        0.84182  (11030716)
       483489.84   3733629.23        0.51517  (11112416)               483469.20
 3733603.25        0.59517  (11112416)
       483395.89   3733616.42        0.80348  (11030716)               482349.64
 3733526.99        0.12447c (10122116)
       482357.81   3733501.58        0.13530c (10122116)               482270.38
 3733723.63        0.09270  (10121516)
       482320.90   3733736.94        0.10543  (10121516)               482354.18
 3733907.26        0.10866  (10121516)
       482347.82   3733886.09        0.11010  (10121516)               482297.60
 3733821.35        0.10355  (10121516)
       482523.43   3734103.91        0.13804  (16010516)               482584.29
 3734097.50        0.18202  (16010516)
       484156.44   3733746.98        0.06903  (10121516)               484156.60
 3733885.12        0.06761c (10122116)
       484123.94   3733944.58        0.07232c (10122116)               483969.00
 3733570.22        0.09234  (10121516)
 *** AERMOD - VERSION 23132  ***   ***
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05/06/24
 *** AERMET - VERSION  16216 ***   ***
                        ***       11:33:26

                                  PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                                *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                  ** CONC OF CO       IN MICROGRAMS/M**3
```

**

GROUP ID	AVERAGE	NETWORK CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH	1ST HIGH VALUE IS	13.59263	ON 16010616: AT (483012.96, 3733295.40, 435.00, 435.00, 2.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO IN MICROGRAMS/M**3
**

GROUP ID	AVERAGE	NETWORK CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH	1ST HIGH VALUE IS	5.79105	ON 11100516: AT (483206.77, 3733449.91, 435.56, 435.56, 2.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of   0 Fatal Error Message(s)
 A Total of   4 Warning Message(s)
 A Total of   2028 Informational Message(s)

 A Total of   43824 Hours Were Processed

 A Total of   978 Calm Hours Identified

 A Total of   1050 Missing Hours Identified (2.40 Percent)

    ******** FATAL ERROR MESSAGES ********
               *** NONE ***

    ********   WARNING MESSAGES   ********
 ME W186   168   MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187   168   MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 MX W450   17521   CHKDAT: Record Out of Sequence in Meteorological File at:
  14010101
 MX W450   17521   CHKDAT: Record Out of Sequence in Meteorological File at:
2 year gap

    ****
    *** AERMOD Finishes Successfully ***
    ****
**
****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Operational
NOX LSTs\Operational NOX LSTs.ADI
**
****

```
**
**
*************************************
** AERMOD Control Pathway
*************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 1
   URBANOPT 2189641 County_of_Riverside
   POLLUTID NOX
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Operational NOX LSTs.err"
CO FINISHED
**
*************************************
** AERMOD Source Pathway
*************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
   SRCPARAM VOL1         0.0040961911     5.000    22.188     1.400
   SRCPARAM VOL2         0.0040961911     5.000    22.188     1.400
   SRCPARAM VOL3         0.0040961911     5.000    22.188     1.400
   SRCPARAM VOL4         0.0040961911     5.000    22.188     1.400
   SRCPARAM VOL5         0.0040961911     5.000    22.188     1.400
   SRCPARAM VOL6         0.0040961911     5.000    22.188     1.400
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Operational NOX LSTs.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
```

```
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "OPERATIONAL NOX LSTS.AD\01H1GALL.PLT" 31
   SUMMFILE "Operational NOX LSTs.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    North American Datum 1983
** DTMRGN   CONUS
** UNITS    m
** ZONE     11
** ZONEINX  0
**
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Operational
NOX LSTs\Operational NOX LSTs.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
```

```
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 1
   URBANOPT 2189641 County_of_Riverside
   POLLUTID NOX
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Operational NOX LSTs.err"
CO FINISHED
**
**********************************
** AERMOD Source Pathway
**********************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
   SRCPARAM VOL1         0.0040961911     5.000    22.188     1.400
   SRCPARAM VOL2         0.0040961911     5.000    22.188     1.400
   SRCPARAM VOL3         0.0040961911     5.000    22.188     1.400
   SRCPARAM VOL4         0.0040961911     5.000    22.188     1.400
   SRCPARAM VOL5         0.0040961911     5.000    22.188     1.400
   SRCPARAM VOL6         0.0040961911     5.000    22.188     1.400
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
```

```
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED "Operational NOX LSTs.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
```

```
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "OPERATIONAL NOX LSTS.AD\01H1GALL.PLT" 31
   SUMMFILE "Operational NOX LSTs.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     168       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     168       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                        ***       11:46:34

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                          ***     MODEL SETUP OPTIONS SUMMARY
```

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  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses URBAN Dispersion Algorithm for the SBL for     6 Source(s),
        for Total of    1 Urban Area(s):
   Urban Population =   2189641.0 ;  Urban Roughness Length =  1.000 m
      * Urban Roughness Length of 1.0 Meter Used.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Accepts FLAGPOLE Receptor . Heights.
      * The User Specified a Pollutant Type of: NOX

 **Model Calculates  1 Short Term Average(s) of:   1-HR

 **This Run Includes:      6 Source(s);       1 Source Group(s); and      46
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      6 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
```

Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ; Decay
Coef. =   0.000   ; Rot. Angle =   0.0
                  Emission Units = GRAMS/SEC   ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =   3.5 MB of RAM.

 **Input Runstream File: aermod.inp

 **Output Print File: aermod.out

 **Detailed Error/Message File: Operational NOX LSTs.err

 **File for Summary of Results: Operational NOX LSTs.sum

↟ *** AERMOD - VERSION 23132 ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION 16216 ***   ***
                        ***   11:46:34

                                   PAGE   2
 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE   BASE   RELEASE   INIT.
INIT.   URBAN EMISSION RATE   AIRCRAFT
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT   SY
SZ   SOURCE SCALAR VARY
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   BY
 -
- - - - - - - - - - - - - - - - - - - -

 VOL1   0   0.40962E-02 483130.5 3733373.1   435.0   5.00   22.19
1.40   YES   HRDOW   NO

```
 VOL2             0   0.40962E-02  483225.6 3733373.4   436.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL3             0   0.40962E-02  483130.5 3733277.6   435.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL4             0   0.40962E-02  483225.9 3733278.4   436.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL5             0   0.40962E-02  483131.6 3733211.8   435.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL6             0   0.40962E-02  483227.7 3733214.3   436.0     5.00    22.19
1.40     YES   HRDOW            NO
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                        ***       11:46:34

                                  PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*


                                       *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                          SOURCE IDs
 -----------                                          ----------


  ALL        VOL1        , VOL2        , VOL3        , VOL4        , VOL5        ,
VOL6        ,
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                        ***       11:46:34

                                  PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*


                                       *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                SOURCE IDs
  --------   ---------                                ----------


             2189641.   VOL1        , VOL2        , VOL3        , VOL4        ,
VOL5        , VOL6        ,
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
```

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL1   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL2   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - -

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                            DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL4   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                            DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                            DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                            DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL5 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL6 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

3732851.0,   435.0,   435.0,   2.0);
     (483630.1, 3732851.5,   437.0,   437.0,   2.0);   (482959.6,
3733603.3,   435.0,   435.0,   2.0);
     (482960.0, 3733649.7,   435.0,   435.0,   2.0);   (482856.2,
3733634.2,   435.0,   435.0,   2.0);
     (482816.4, 3733631.3,   435.0,   435.0,   2.0);   (483094.9,
3733654.3,   435.0,   435.0,   2.0);
     (483176.1, 3733639.3,   436.0,   436.0,   2.0);   (483267.8,
3733641.8,   436.0,   436.0,   2.0);
     (483301.7, 3733642.6,   436.0,   436.0,   2.0);   (483130.9,
3733648.8,   435.0,   435.0,   2.0);
     (483299.3, 3733586.0,   436.0,   436.0,   2.0);   (483323.1,
3733603.4,   436.0,   436.0,   2.0);
     (483297.8, 3733710.2,   436.0,   436.0,   2.0);   (483365.8,
3733652.2,   436.0,   436.0,   2.0);
     (483234.1, 3733518.0,   436.0,   436.0,   2.0);   (483233.3,
3733502.4,   436.0,   436.0,   2.0);
     (483708.4, 3733587.9,   438.0,   438.0,   2.0);   (483367.4,
3733628.2,   436.0,   436.0,   2.0);
     (483489.8, 3733629.2,   437.0,   437.0,   2.0);   (483469.2,
3733603.2,   437.0,   437.0,   2.0);
     (483395.9, 3733616.4,   436.0,   436.0,   2.0);   (482349.6,
3733527.0,   434.0,   434.0,   2.0);
     (482357.8, 3733501.6,   434.0,   434.0,   2.0);   (482270.4,
3733723.6,   433.0,   433.0,   2.0);
     (482320.9, 3733736.9,   433.0,   433.0,   2.0);   (482354.2,
3733907.3,   433.0,   433.0,   2.0);
     (482347.8, 3733886.1,   433.0,   433.0,   2.0);   (482297.6,
3733821.3,   433.0,   433.0,   2.0);
     (482523.4, 3734103.9,   433.3,   433.3,   2.0);   (482584.3,
3734097.5,   434.0,   434.0,   2.0);
     (484156.4, 3733747.0,   441.0,   441.0,   2.0);   (484156.6,
3733885.1,   441.5,   441.5,   2.0);
     (484123.9, 3733944.6,   441.1,   441.1,   2.0);   (483969.0,
3733570.2,   439.2,   439.2,   2.0);

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                                          *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                              (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1

```
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: PERI_V9_ADJU\PERI_v9.SFC
Met Version: 16216
Profile file: PERI_V9_ADJU\PERI_v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 3171 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN

Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-7.9	0.125	-9.000	-9.000	-999.	106.	21.2	0.19	0.61	1.00	1.30	335.	9.1	282.5	5.5
10	01	01	1	02	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	142.	9.1	280.9	5.5
10	01	01	1	03	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	324.	9.1	280.4	5.5
10	01	01	1	04	-1.3	0.064	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	294.	9.1	278.8	5.5
10	01	01	1	05	-3.9	0.088	-9.000	-9.000	-999.	62.	15.0	0.19	0.61	1.00	0.90	205.	9.1	278.1	5.5
10	01	01	1	06	-1.3	0.065	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	3.	9.1	277.0	5.5
10	01	01	1	07	-8.0	0.125	-9.000	-9.000	-999.	106.	21.0	0.19	0.61	1.00	1.30	99.	9.1	277.0	5.5
10	01	01	1	08	-3.3	0.086	-9.000	-9.000	-999.	61.	16.8	0.19	0.61	0.54	0.90	319.	9.1	278.8	5.5
10	01	01	1	09	20.1	0.128	0.307	0.010	49.	110.	-9.0	0.19	0.61	0.33	0.90	239.	9.1	284.2	5.5
10	01	01	1	10	56.7	0.087	0.560	0.010	107.	62.	-1.0	0.19	0.61	0.26	0.40	188.	9.1	289.2	5.5
10	01	01	1	11	81.5	0.323	0.867	0.008	277.	441.	-35.9	0.19	0.61	0.23	2.70	310.	9.1	290.9	5.5
10	01	01	1	12	97.1	0.281	1.058	0.008	421.	357.	-19.7	0.19	0.61	0.22	2.20	357.	9.1	293.1	5.5
10	01	01	1	13	92.2	0.279	1.117	0.008	523.	354.	-20.4	0.19	0.61	0.22	2.20	356.	9.1	293.8	5.5
10	01	01	1	14	77.6	0.275	1.102	0.008	595.	347.	-23.2	0.19	0.61	0.23	2.20	50.	9.1	294.2	5.5
10	01	01	1	15	54.9	0.230	1.006	0.008	640.	266.	-19.2	0.19	0.61	0.27	1.80	53.	9.1	293.8	5.5
10	01	01	1	16	12.3	0.206	0.613	0.008	648.	225.	-61.5	0.19	0.61	0.36	1.80	11.	9.1	292.5	5.5
10	01	01	1	17	-3.6	0.087	-9.000	-9.000	-999.	71.	15.6	0.19	0.61	0.64	0.90	351.	9.1	290.4	5.5
10	01	01	1	18	-3.8	0.087	-9.000	-9.000	-999.	62.	15.2	0.19	0.61	1.00	0.90	186.	9.1	287.5	5.5
10	01	01	1	19	-3.8	0.087	-9.000	-9.000	-999.	62.	15.2	0.19	0.61	1.00	0.90	275.	9.1	285.9	5.5
10	01	01	1	20	-1.2	0.064	-9.000	-9.000	-999.	39.	18.1	0.19	0.61	1.00	0.40	181.	9.1	285.4	5.5
10	01	01	1	21	-7.8	0.125	-9.000	-9.000	-999.	106.	21.3	0.19	0.61	1.00	1.30	318.	9.1	284.9	5.5
10	01	01	1	22	-3.8	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	196.	9.1	283.1	5.5
10	01	01	1	23	-3.8	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61						

```
1.00    0.90  330.    9.1  281.4    5.5
 10 01 01   1 24   -7.9  0.125 -9.000 -9.000 -999.  106.     21.2  0.19   0.61
1.00    1.30  332.    9.1  280.9    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01    5.5 0 -999.  -99.00   282.6   99.0  -99.00  -99.00
 10 01 01 01    9.1 1  335.    1.30  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                        ***        11:46:34

                                   PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
                VOL6        ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                     ** CONC OF NOX      IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        483206.77   3733449.91        2.59356  (10122216)               483197.50
 3733502.14        1.56354  (11121915)
        483012.96   3733295.40        3.74171  (16010616)               482921.28
 3733279.91        1.76621  (16010616)
        483004.17   3733358.20        2.96069  (16010616)               482943.05
 3733222.13        1.75108  (16010616)
        483575.97   3733053.93        0.36850  (14103116)               483712.90
 3733038.66        0.26344  (16010716)
        483326.25   3732789.92        0.36331  (14111316)               483181.93
 3732838.68        0.56096  (14111116)
        483392.25   3732810.12        0.42536  (11111816)               482867.69
 3732851.00        0.39186  (11010316)
        483630.15   3732851.49        0.25108  (16011916)               482959.63
 3733603.27        1.21419  (16010516)
```

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       482960.05   3733649.74        1.04819  (16010516)               482856.21
 3733634.25        0.61605  (16010516)
       482816.44   3733631.32        0.41524  (16010516)               483094.86
 3733654.35        0.67843  (14121116)
       483176.09   3733639.28        0.74806  (10120316)               483267.78
 3733641.79        0.62797  (10122216)
       483301.69   3733642.63        0.69908  (10122216)               483130.87
 3733648.85        0.71190  (14121116)
       483299.26   3733586.00        0.98603  (10122216)               483323.11
 3733603.44        0.87183  (10122216)
       483297.84   3733710.20        0.45499  (10122216)               483365.81
 3733652.19        0.63621  (10122216)
       483234.13   3733518.02        1.47068  (10122216)               483233.32
 3733502.41        1.69874  (10122216)
       483708.37   3733587.95        0.24096  (10012115)               483367.41
 3733628.17        0.68559  (10122216)
       483489.84   3733629.23        0.44472  (10020516)               483469.20
 3733603.25        0.50801  (10020516)
       483395.89   3733616.42        0.68865  (10020516)               482349.64
 3733526.99        0.14564  (16010616)
       482357.81   3733501.58        0.15886  (16010616)               482270.38
 3733723.63        0.10433  (11121216)
       482320.90   3733736.94        0.11442  (11121216)               482354.18
 3733907.26        0.12026  (10121515)
       482347.82   3733886.09        0.12192  (10121515)               482297.60
 3733821.35        0.10722  (10121515)
       482523.43   3734103.91        0.16803  (16010516)               482584.29
 3734097.50        0.21270  (16010516)
       484156.44   3733746.98        0.07233  (10121516)               484156.60
 3733885.12        0.08306  (10012115)
       484123.94   3733944.58        0.07848  (10012115)               483969.00
 3733570.22        0.11060  (10121516)
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                        ***       11:46:34

                                  PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                                *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                  ** CONC OF NOX      IN MICROGRAMS/M**3
               **

                                                      DATE
                                        NETWORK
```

GROUP ID   AVERAGE CONC   (YYMMDDHH)   RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)   OF TYPE GRID-ID
- - - -

```
    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Operational
PM10 LSTs\Operational PM10 LSTs.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 2189641 County_of_Riverside
   POLLUTID PM_10
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Operational PM10 LSTs.err"
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
   SRCPARAM VOL1         0.0002078965     5.000    22.188     1.400
   SRCPARAM VOL2         0.0002078965     5.000    22.188     1.400
```

```
   SRCPARAM VOL3         0.0002078965     5.000    22.188     1.400
   SRCPARAM VOL4         0.0002078965     5.000    22.188     1.400
   SRCPARAM VOL5         0.0002078965     5.000    22.188     1.400
   SRCPARAM VOL6         0.0002078965     5.000    22.188     1.400
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
```

```
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Operational PM10 LSTs.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST "OPERATIONAL PM10 LSTS.AD\24H1GALL.PLT" 31
   SUMMFILE "Operational PM10 LSTs.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    North American Datum 1983
** DTMRGN   CONUS
** UNITS    m
** ZONE     11
** ZONEINX  0
**
**
**************************************
```

```
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Operational
PM10 LSTs\Operational PM10 LSTs.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 2189641 County_of_Riverside
   POLLUTID PM_10
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Operational PM10 LSTs.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
   SRCPARAM VOL1         0.0002078965     5.000    22.188     1.400
   SRCPARAM VOL2         0.0002078965     5.000    22.188     1.400
   SRCPARAM VOL3         0.0002078965     5.000    22.188     1.400
   SRCPARAM VOL4         0.0002078965     5.000    22.188     1.400
   SRCPARAM VOL5         0.0002078965     5.000    22.188     1.400
   SRCPARAM VOL6         0.0002078965     5.000    22.188     1.400
   URBANSRC ALL
```

```
** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
```

```
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
```

```
RE STARTING
   INCLUDED "Operational PM10 LSTs.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST "OPERATIONAL PM10 LSTS.AD\24H1GALL.PLT" 31
   SUMMFILE "Operational PM10 LSTs.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     168       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     168       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
```

```
 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                         ***       11:51:31

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                          ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses URBAN Dispersion Algorithm for the SBL for     6 Source(s),
        for Total of    1 Urban Area(s):
   Urban Population =   2189641.0 ;  Urban Roughness Length =  1.000 m
      * Urban Roughness Length of 1.0 Meter Used.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Accepts FLAGPOLE Receptor . Heights.
      * The User Specified a Pollutant Type of: PM_10

 **Model Calculates  1 Short Term Average(s) of:  24-HR

 **This Run Includes:      6 Source(s);       1 Source Group(s); and      46
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      6 VOLUME source(s)
                 and:      0 AREA type source(s)
```

```
                and:      0 LINE source(s)
                and:      0 RLINE/RLINEXT source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   Operational PM10 LSTs.err

 **File for Summary of Results:   Operational PM10 LSTs.sum

 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                         ***       11:51:31

                                   PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY	AIRCRAFT
VOL1	0	0.20790E-03	483130.5	3733373.1	435.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL2	0	0.20790E-03	483225.6	3733373.4	436.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL3	0	0.20790E-03	483130.5	3733277.6	435.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL4	0	0.20790E-03	483225.9	3733278.4	436.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL5	0	0.20790E-03	483131.6	3733211.8	435.0	5.00	22.19	1.40	YES	HRDOW	NO
VOL6	0	0.20790E-03	483227.7	3733214.3	436.0	5.00	22.19	1.40	YES	HRDOW	NO

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	VOL1 , VOL2 , VOL3 , VOL4 , VOL5 , VOL6 ,

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

2189641. VOL1   , VOL2   , VOL3   , VOL4   , VOL5   , VOL6   ,

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = VOL1   ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00						

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL2   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                  DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

```
 SOURCE ID = VOL3          ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        11:51:31

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL4          ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

```
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        11:51:31

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL5          ; SOURCE TYPE = VOLUME    :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                            DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
```

14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL6   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(483206.8, 3733449.9, 435.6, 435.6, 2.0); (483197.5, 3733502.1, 435.2, 435.2, 2.0);
(483013.0, 3733295.4, 435.0, 435.0, 2.0); (482921.3, 3733279.9, 435.0, 435.0, 2.0);
(483004.2, 3733358.2, 435.0, 435.0, 2.0); (482943.0, 3733222.1, 435.0, 435.0, 2.0);
(483576.0, 3733053.9, 437.0, 437.0, 2.0); (483712.9, 3733038.7, 437.4, 437.4, 2.0);
(483326.2, 3732789.9, 436.0, 436.0, 2.0); (483181.9, 3732838.7, 436.0, 436.0, 2.0);
(483392.2, 3732810.1, 436.7, 436.7, 2.0); (482867.7, 3732851.0, 435.0, 435.0, 2.0);
(483630.1, 3732851.5, 437.0, 437.0, 2.0); (482959.6, 3733603.3, 435.0, 435.0, 2.0);
(482960.0, 3733649.7, 435.0, 435.0, 2.0); (482856.2, 3733634.2, 435.0, 435.0, 2.0);
(482816.4, 3733631.3, 435.0, 435.0, 2.0); (483094.9, 3733654.3, 435.0, 435.0, 2.0);
(483176.1, 3733639.3, 436.0, 436.0, 2.0); (483267.8, 3733641.8, 436.0, 436.0, 2.0);
(483301.7, 3733642.6, 436.0, 436.0, 2.0); (483130.9, 3733648.8, 435.0, 435.0, 2.0);
(483299.3, 3733586.0, 436.0, 436.0, 2.0); (483323.1, 3733603.4, 436.0, 436.0, 2.0);
(483297.8, 3733710.2, 436.0, 436.0, 2.0); (483365.8, 3733652.2, 436.0, 436.0, 2.0);
(483234.1, 3733518.0, 436.0, 436.0, 2.0); (483233.3, 3733502.4, 436.0, 436.0, 2.0);
(483708.4, 3733587.9, 438.0, 438.0, 2.0); (483367.4, 3733628.2, 436.0, 436.0, 2.0);
(483489.8, 3733629.2, 437.0, 437.0, 2.0); (483469.2, 3733603.2, 437.0, 437.0, 2.0);
(483395.9, 3733616.4, 436.0, 436.0, 2.0); (482349.6, 3733527.0, 434.0, 434.0, 2.0);
(482357.8, 3733501.6, 434.0, 434.0, 2.0); (482270.4, 3733723.6, 433.0, 433.0, 2.0);
(482320.9, 3733736.9, 433.0, 433.0, 2.0); (482354.2, 3733907.3, 433.0, 433.0, 2.0);
(482347.8, 3733886.1, 433.0, 433.0, 2.0); (482297.6, 3733821.3, 433.0, 433.0, 2.0);
(482523.4, 3734103.9, 433.3, 433.3, 2.0); (482584.3, 3734097.5, 434.0, 434.0, 2.0);
(484156.4, 3733747.0, 441.0, 441.0, 2.0); (484156.6, 3733885.1, 441.5, 441.5, 2.0);
(484123.9, 3733944.6, 441.1, 441.1, 2.0); (483969.0, 3733570.2, 439.2, 439.2, 2.0);

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

1 1 1

DATA ***

Surface file: PERI_V9_ADJU\PERI_v9.SFC
Met Version: 16216
Profile file: PERI_V9_ADJU\PERI_v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 3171 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN

Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-7.9	0.125	-9.000	-9.000	-999.	106.	21.2	0.19	0.61	1.00	1.30	335.	9.1	282.5	5.5
10	01	01	1	02	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	142.	9.1	280.9	5.5
10	01	01	1	03	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	324.	9.1	280.4	5.5
10	01	01	1	04	-1.3	0.064	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	294.	9.1	278.8	5.5
10	01	01	1	05	-3.9	0.088	-9.000	-9.000	-999.	62.	15.0	0.19	0.61	1.00	0.90	205.	9.1	278.1	5.5
10	01	01	1	06	-1.3	0.065	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	3.	9.1	277.0	5.5
10	01	01	1	07	-8.0	0.125	-9.000	-9.000	-999.	106.	21.0	0.19	0.61	1.00	1.30	99.	9.1	277.0	5.5
10	01	01	1	08	-3.3	0.086	-9.000	-9.000	-999.	61.	16.8	0.19	0.61	0.54	0.90	319.	9.1	278.8	5.5
10	01	01	1	09	20.1	0.128	0.307	0.010	49.	110.	-9.0	0.19	0.61	0.33	0.90	239.	9.1	284.2	5.5
10	01	01	1	10	56.7	0.087	0.560	0.010	107.	62.	-1.0	0.19	0.61	0.26	0.40	188.	9.1	289.2	5.5
10	01	01	1	11	81.5	0.323	0.867	0.008	277.	441.	-35.9	0.19	0.61	0.23	2.70	310.	9.1	290.9	5.5
10	01	01	1	12	97.1	0.281	1.058	0.008	421.	357.	-19.7	0.19	0.61	0.22	2.20	357.	9.1	293.1	5.5
10	01	01	1	13	92.2	0.279	1.117	0.008	523.	354.	-20.4	0.19	0.61	0.22	2.20	356.	9.1	293.8	5.5
10	01	01	1	14	77.6	0.275	1.102	0.008	595.	347.	-23.2	0.19	0.61	0.23	2.20	50.	9.1	294.2	5.5
10	01	01	1	15	54.9	0.230	1.006	0.008	640.	266.	-19.2	0.19	0.61	0.27	1.80	53.	9.1	293.8	5.5

```
 10 01 01   1 16   12.3  0.206  0.613  0.008  648.  225.    -61.5  0.19   0.61
0.36    1.80   11.    9.1  292.5    5.5
 10 01 01   1 17   -3.6  0.087 -9.000 -9.000 -999.   71.     15.6  0.19   0.61
0.64    0.90  351.    9.1  290.4    5.5
 10 01 01   1 18   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  186.    9.1  287.5    5.5
 10 01 01   1 19   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  275.    9.1  285.9    5.5
 10 01 01   1 20   -1.2  0.064 -9.000 -9.000 -999.   39.     18.1  0.19   0.61
1.00    0.40  181.    9.1  285.4    5.5
 10 01 01   1 21   -7.8  0.125 -9.000 -9.000 -999.  106.     21.3  0.19   0.61
1.00    1.30  318.    9.1  284.9    5.5
 10 01 01   1 22   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  196.    9.1  283.1    5.5
 10 01 01   1 23   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  330.    9.1  281.4    5.5
 10 01 01   1 24   -7.9  0.125 -9.000 -9.000 -999.  106.     21.2  0.19   0.61
1.00    1.30  332.    9.1  280.9    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01    5.5 0 -999.  -99.00   282.6   99.0  -99.00  -99.00
 10 01 01 01    9.1 1  335.    1.30  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        11:51:31

                                  PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                               *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
                VOL6        ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - -
        483206.77   3733449.91        0.02697  (11100524)                483197.50
 3733502.14        0.01634  (11100524)
        483012.96   3733295.40        0.01325c (14120324)                482921.28
 3733279.91        0.00611c (14120324)
        483004.17   3733358.20        0.01157  (11121224)                482943.05
 3733222.13        0.00738c (14012424)
        483575.97   3733053.93        0.00215m (10052024)                483712.90
 3733038.66        0.00113  (15121424)
        483326.25   3732789.92        0.00317m (14123124)                483181.93
 3732838.68        0.00297m (10120724)
        483392.25   3732810.12        0.00295  (14120124)                482867.69
 3732851.00        0.00200  (16121924)
        483630.15   3732851.49        0.00167c (16011924)                482959.63
 3733603.27        0.00611  (16010524)
        482960.05   3733649.74        0.00558  (16010524)                482856.21
 3733634.25        0.00263  (16010524)
        482816.44   3733631.32        0.00182  (11051724)                483094.86
 3733654.35        0.00606  (16010524)
        483176.09   3733639.28        0.00679  (11100524)                483267.78
 3733641.79        0.00505  (10100524)
        483301.69   3733642.63        0.00443  (10100524)                483130.87
 3733648.85        0.00592  (11100524)
        483299.26   3733586.00        0.00572c (10020924)                483323.11
 3733603.44        0.00493c (11030724)
        483297.84   3733710.20        0.00344  (10100524)                483365.81
 3733652.19        0.00368c (11030724)
        483234.13   3733518.02        0.01270  (11100524)                483233.32
 3733502.41        0.01455  (11100524)
        483708.37   3733587.95        0.00092m (11022524)                483367.41
 3733628.17        0.00409c (11030724)
        483489.84   3733629.23        0.00247c (10033124)                483469.20
 3733603.25        0.00283c (10033124)
        483395.89   3733616.42        0.00390c (11030724)                482349.64
 3733526.99        0.00053c (10122124)
        482357.81   3733501.58        0.00058c (10122124)                482270.38
 3733723.63        0.00043  (10121524)
        482320.90   3733736.94        0.00049  (10121524)                482354.18
 3733907.26        0.00051  (10121524)
        482347.82   3733886.09        0.00051  (10121524)                482297.60
 3733821.35        0.00048  (10121524)
        482523.43   3734103.91        0.00064  (16010524)                482584.29
 3734097.50        0.00085  (16010524)
        484156.44   3733746.98        0.00032  (10121524)                484156.60
 3733885.12        0.00031  (10121524)
        484123.94   3733944.58        0.00031c (10122124)                483969.00
 3733570.22        0.00045c (10012924)
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
```

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	NETWORK CONC OF TYPE	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	0.02697	ON 11100524:	AT (483206.77, 3733449.91, 435.56, 435.56, 2.00)	DC

*** RECEPTOR TYPES: GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   4 Warning Message(s)
A Total of   2028 Informational Message(s)

A Total of   43824 Hours Were Processed

A Total of   978 Calm Hours Identified

A Total of   1050 Missing Hours Identified (2.40 Percent)

```
    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     168       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     168       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:
  14010101
 MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:
2 year gap

    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
**
*****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Operational
PM25 LSTs\Operational PM25 LSTs.ADI
**
*****************************************
**
**
*****************************************
** AERMOD Control Pathway
*****************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 2189641 County_of_Riverside
   POLLUTID PM_2.5
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Operational PM25 LSTs.err"
CO FINISHED
**
*****************************************
** AERMOD Source Pathway
```

```
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
   SRCPARAM VOL1         0.0001587573     5.000    22.188     1.400
   SRCPARAM VOL2         0.0001587573     5.000    22.188     1.400
   SRCPARAM VOL3         0.0001587573     5.000    22.188     1.400
   SRCPARAM VOL4         0.0001587573     5.000    22.188     1.400
   SRCPARAM VOL5         0.0001587573     5.000    22.188     1.400
   SRCPARAM VOL6         0.0001587573     5.000    22.188     1.400
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Operational PM25 LSTs.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST "OPERATIONAL PM25 LSTS.AD\24H1GALL.PLT" 31
   SUMMFILE "Operational PM25 LSTs.sum"
```

```
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    North American Datum 1983
** DTMRGN   CONUS
** UNITS    m
** ZONE     11
** ZONEINX  0
**
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/6/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\Operational
PM25 LSTs\Operational PM25 LSTs.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 2189641 County_of_Riverside
   POLLUTID PM_2.5
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL "Operational PM25 LSTs.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
```

```
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
   SRCPARAM VOL1         0.0001587573     5.000    22.188     1.400
   SRCPARAM VOL2         0.0001587573     5.000    22.188     1.400
   SRCPARAM VOL3         0.0001587573     5.000    22.188     1.400
   SRCPARAM VOL4         0.0001587573     5.000    22.188     1.400
   SRCPARAM VOL5         0.0001587573     5.000    22.188     1.400
   SRCPARAM VOL6         0.0001587573     5.000    22.188     1.400
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
```

```
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Operational PM25 LSTs.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST "OPERATIONAL PM25 LSTS.AD\24H1GALL.PLT" 31
   SUMMFILE "Operational PM25 LSTs.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------
```

```
 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     168       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     168       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

 *** AERMOD - VERSION 23132  ***   ***
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05/06/24
 *** AERMET - VERSION  16216 ***   ***
                         ***       11:54:05

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses URBAN Dispersion Algorithm for the SBL for     6 Source(s),
        for Total of    1 Urban Area(s):
   Urban Population =   2189641.0 ;  Urban Roughness Length =  1.000 m
      * Urban Roughness Length of 1.0 Meter Used.
```

```
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Accepts FLAGPOLE Receptor . Heights.
      * The User Specified a Pollutant Type of: PM_2.5

 **Model Calculates  1 Short Term Average(s) of:  24-HR

 **This Run Includes:      6 Source(s);       1 Source Group(s); and      46
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      6 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                 ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Input Runstream File:          aermod.inp
```

```
 **Output Print File:             aermod.out


 **Detailed Error/Message File:   Operational PM25 LSTs.err

 **File for Summary of Results:   Operational PM25 LSTs.sum

 *** AERMOD - VERSION 23132  ***   ***
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 *** AERMET - VERSION  16216 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE   AIRCRAFT
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 VOL1             0   0.15876E-03  483130.5 3733373.1   435.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL2             0   0.15876E-03  483225.6 3733373.4   436.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL3             0   0.15876E-03  483130.5 3733277.6   435.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL4             0   0.15876E-03  483225.9 3733278.4   436.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL5             0   0.15876E-03  483131.6 3733211.8   435.0     5.00    22.19
1.40     YES   HRDOW            NO
 VOL6             0   0.15876E-03  483227.7 3733214.3   436.0     5.00    22.19
1.40     YES   HRDOW            NO
 *** AERMOD - VERSION 23132  ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*
```

*** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID   SOURCE IDs
 -----------   ----------

  ALL   VOL1   , VOL2   , VOL3   , VOL4   , VOL5   ,
VOL6   ,

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP   SOURCE IDs
  --------   ---------   ----------

             2189641.   VOL1   , VOL2   , VOL3   , VOL4   ,
VOL5   , VOL6   ,

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL1   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                  DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01

```
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL2          ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

```
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL3         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*
```

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL4   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - -

```
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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 *** AERMET - VERSION  16216 ***   ***
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                                  PAGE  10
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL6          ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(483206.8, 3733449.9, 435.6, 435.6, 2.0); (483197.5, 3733502.1, 435.2, 435.2, 2.0);
(483013.0, 3733295.4, 435.0, 435.0, 2.0); (482921.3, 3733279.9, 435.0, 435.0, 2.0);
(483004.2, 3733358.2, 435.0, 435.0, 2.0); (482943.0, 3733222.1, 435.0, 435.0, 2.0);
(483576.0, 3733053.9, 437.0, 437.0, 2.0); (483712.9, 3733038.7, 437.4, 437.4, 2.0);
(483326.2, 3732789.9, 436.0, 436.0, 2.0); (483181.9, 3732838.7, 436.0, 436.0, 2.0);
(483392.2, 3732810.1, 436.7, 436.7, 2.0); (482867.7, 3732851.0, 435.0, 435.0, 2.0);
(483630.1, 3732851.5, 437.0, 437.0, 2.0); (482959.6, 3733603.3, 435.0, 435.0, 2.0);
(482960.0, 3733649.7, 435.0, 435.0, 2.0); (482856.2, 3733634.2, 435.0, 435.0, 2.0);
(482816.4, 3733631.3, 435.0, 435.0, 2.0); (483094.9, 3733654.3, 435.0, 435.0, 2.0);
(483176.1, 3733639.3, 436.0, 436.0, 2.0); (483267.8, 3733641.8, 436.0, 436.0, 2.0);
(483301.7, 3733642.6, 436.0, 436.0, 2.0); (483130.9, 3733648.8, 435.0, 435.0, 2.0);
(483299.3, 3733586.0, 436.0, 436.0, 2.0); (483323.1, 3733603.4, 436.0, 436.0, 2.0);
(483297.8, 3733710.2, 436.0, 436.0, 2.0); (483365.8, 3733652.2, 436.0, 436.0, 2.0);
(483234.1, 3733518.0, 436.0, 436.0, 2.0); (483233.3, 3733502.4, 436.0, 436.0, 2.0);
(483708.4, 3733587.9, 438.0, 438.0, 2.0); (483367.4, 3733628.2, 436.0, 436.0, 2.0);
(483489.8, 3733629.2, 437.0, 437.0, 2.0); (483469.2,

 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

                                          *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                              (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

               NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.

                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: PERI_V9_ADJU\PERI_v9.SFC
Met Version: 16216
Profile file: PERI_V9_ADJU\PERI_v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 3171 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN

Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-7.9	0.125	-9.000	-9.000	-999.	106.	21.2	0.19	0.61	1.00	1.30	335.	9.1	282.5	5.5
10	01	01	1	02	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	142.	9.1	280.9	5.5
10	01	01	1	03	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	324.	9.1	280.4	5.5
10	01	01	1	04	-1.3	0.064	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	294.	9.1	278.8	5.5
10	01	01	1	05	-3.9	0.088	-9.000	-9.000	-999.	62.	15.0	0.19	0.61	1.00	0.90	205.	9.1	278.1	5.5
10	01	01	1	06	-1.3	0.065	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	3.	9.1	277.0	5.5
10	01	01	1	07	-8.0	0.125	-9.000	-9.000	-999.	106.	21.0	0.19	0.61	1.00	1.30	99.	9.1	277.0	5.5
10	01	01	1	08	-3.3	0.086	-9.000	-9.000	-999.	61.	16.8	0.19	0.61						

```
0.54    0.90  319.    9.1  278.8    5.5
 10 01 01   1 09   20.1  0.128  0.307  0.010   49.  110.     -9.0  0.19   0.61
0.33    0.90  239.    9.1  284.2    5.5
 10 01 01   1 10   56.7  0.087  0.560  0.010  107.   62.     -1.0  0.19   0.61
0.26    0.40  188.    9.1  289.2    5.5
 10 01 01   1 11   81.5  0.323  0.867  0.008  277.  441.    -35.9  0.19   0.61
0.23    2.70  310.    9.1  290.9    5.5
 10 01 01   1 12   97.1  0.281  1.058  0.008  421.  357.    -19.7  0.19   0.61
0.22    2.20  357.    9.1  293.1    5.5
 10 01 01   1 13   92.2  0.279  1.117  0.008  523.  354.    -20.4  0.19   0.61
0.22    2.20  356.    9.1  293.8    5.5
 10 01 01   1 14   77.6  0.275  1.102  0.008  595.  347.    -23.2  0.19   0.61
0.23    2.20   50.    9.1  294.2    5.5
 10 01 01   1 15   54.9  0.230  1.006  0.008  640.  266.    -19.2  0.19   0.61
0.27    1.80   53.    9.1  293.8    5.5
 10 01 01   1 16   12.3  0.206  0.613  0.008  648.  225.    -61.5  0.19   0.61
0.36    1.80   11.    9.1  292.5    5.5
 10 01 01   1 17   -3.6  0.087 -9.000 -9.000 -999.   71.     15.6  0.19   0.61
0.64    0.90  351.    9.1  290.4    5.5
 10 01 01   1 18   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  186.    9.1  287.5    5.5
 10 01 01   1 19   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  275.    9.1  285.9    5.5
 10 01 01   1 20   -1.2  0.064 -9.000 -9.000 -999.   39.     18.1  0.19   0.61
1.00    0.40  181.    9.1  285.4    5.5
 10 01 01   1 21   -7.8  0.125 -9.000 -9.000 -999.  106.     21.3  0.19   0.61
1.00    1.30  318.    9.1  284.9    5.5
 10 01 01   1 22   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  196.    9.1  283.1    5.5
 10 01 01   1 23   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  330.    9.1  281.4    5.5
 10 01 01   1 24   -7.9  0.125 -9.000 -9.000 -999.  106.     21.2  0.19   0.61
1.00    1.30  332.    9.1  280.9    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01    5.5 0 -999.  -99.00   282.6   99.0  -99.00  -99.00
 10 01 01 01    9.1 1  335.    1.30  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                        ***       11:54:05

                                  PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*
```

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL1 , VOL2 , VOL3 , VOL4 , VOL5 , VOL6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
483206.77	3733449.91	0.02059	(11100524)	483197.50	3733502.14	0.01248	(11100524)
483012.96	3733295.40	0.01012c	(14120324)	482921.28	3733279.91	0.00467c	(14120324)
483004.17	3733358.20	0.00883	(11121224)	482943.05	3733222.13	0.00563c	(14012424)
483575.97	3733053.93	0.00164m	(10052024)	483712.90	3733038.66	0.00087	(15121424)
483326.25	3732789.92	0.00242m	(14123124)	483181.93	3732838.68	0.00227m	(10120724)
483392.25	3732810.12	0.00225	(14120124)	482867.69	3732851.00	0.00153	(16121924)
483630.15	3732851.49	0.00128c	(16011924)	482959.63	3733603.27	0.00467	(16010524)
482960.05	3733649.74	0.00426	(16010524)	482856.21	3733634.25	0.00201	(16010524)
482816.44	3733631.32	0.00139	(11051724)	483094.86	3733654.35	0.00463	(16010524)
483176.09	3733639.28	0.00518	(11100524)	483267.78	3733641.79	0.00385	(10100524)
483301.69	3733642.63	0.00339	(10100524)	483130.87	3733648.85	0.00452	(11100524)
483299.26	3733586.00	0.00437c	(10020924)	483323.11	3733603.44	0.00376c	(11030724)
483297.84	3733710.20	0.00262	(10100524)	483365.81	3733652.19	0.00281c	(11030724)
483234.13	3733518.02	0.00970	(11100524)	483233.32	3733502.41	0.01111	(11100524)
483708.37	3733587.95	0.00071m	(11022524)	483367.41	3733628.17	0.00312c	(11030724)
483489.84	3733629.23	0.00188c	(10033124)	483469.20	3733603.25	0.00216c	(10033124)
483395.89	3733616.42	0.00298c	(11030724)	482349.64	3733526.99	0.00040c	(10122124)

```
       482357.81   3733501.58        0.00044c (10122124)               482270.38
 3733723.63        0.00033  (10121524)
       482320.90   3733736.94        0.00037  (10121524)               482354.18
 3733907.26        0.00039  (10121524)
       482347.82   3733886.09        0.00039  (10121524)               482297.60
 3733821.35        0.00037  (10121524)
       482523.43   3734103.91        0.00049  (16010524)               482584.29
 3734097.50        0.00065  (16010524)
       484156.44   3733746.98        0.00025  (10121524)               484156.60
 3733885.12        0.00024  (10121524)
       484123.94   3733944.58        0.00023c (10122124)               483969.00
 3733570.22        0.00034c (10012924)
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        11:54:05

                                  PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                              *** THE SUMMARY OF HIGHEST 24-HR
RESULTS ***


                                   ** CONC OF PM_2.5   IN MICROGRAMS/M**3
               **

                                                        DATE
                                        NETWORK
GROUP ID                           AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       0.02059  ON 11100524: AT (  483206.77,
3733449.91,   435.56,   435.56,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/06/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        11:54:05

                                  PAGE  16
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            4 Warning Message(s)
 A Total of         2028 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of          978 Calm Hours Identified

 A Total of         1050 Missing Hours Identified (  2.40 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     168       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     168       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:
  14010101
 MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:
2 year gap

    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```

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Ethanac Business Park

CONSTRUCTION AND OPERATIONAL HEALTH RISK ASSESSMENT

CITY OF MENIFEE

PREPARED BY:

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AUGUST 29, 2024

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LIST OF ABBREVIATED TERMS

(1)	Reference
µg	Microgram
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
AQMD	Air Quality Management District
ARB	Air Resources Board
ASF	Age Sensitivity Factor
CEQA	California Environmental Quality Act
CPF	Cancer Potency Factor
DPM	Diesel Particulate Matter
EMFAC	Emission Factor Model
EPA	Environmental Protection Agency
FAH	Fraction of Time at Home
HHD	Heavy Heavy-Duty
HI	Hazard Index
HRA	Health Risk Assessment
LHD	Light Heavy-Duty
MEIR	Maximally Exposed Individual Receptor
MEIW	Maximally Exposed Individual Worker
MEISC	Maximally Exposed Individual School Child
MHD	Medium Heavy-Duty
NAD	North American Datum
OEHHA	Office of Environmental Health Hazard Assessment
PDF	Project Design Feature
PM_{10}	Particulate Matter 10 microns in diameter or less
Project	Ethanac Business Park
REL	Reference Exposure Level
SCAQMD	South Coast Air Quality Management District
SRA	Source Receptor Area
TAC	Toxic Air Contaminant
TA	Traffic Analysis
TRU	Transport Refrigeration Unit
URF	Unit Risk Factor
UTM	Universal Transverse Mercator
VMT	Vehicle Miles Traveled

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EXECUTIVE SUMMARY

This report evaluates the potential health risk impacts to sensitive receptors (which are residents) and adjacent workers associated with the development of the Project, more specifically, health risk impacts as a result of exposure to Toxic Air Contaminants (TACs) including diesel particulate matter (DPM) as a result of heavy-duty diesel trucks and equipment associated with on-site and off-site construction and operational activity. This section summarizes the significance criteria and Project health risks.

The results of the health risk assessment from Project-generated DPM emissions are provided in Tables ES-1, ES-2, and ES-3.

CONSTRUCTION IMPACTS

The land use with the greatest potential exposure to Project construction-source DPM emissions is Location R5 which is located approximately 581 feet west of the Project site at an existing residence located at 26228 Trumble Rd. R5 is placed in the private outdoor living areas (backyard) facing the Project site. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project construction-source DPM emissions is estimated at 0.17 in one million, which is less than the South Coast Air Quality Management District (SCAQMD) significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be ≤0.01, which would not exceed the applicable threshold of 1.0. Location R5 is the nearest receptor to the Project site and would experience the highest concentrations of DPM during Project construction due to its location and meteorological conditions at the site. Because all other modeled receptors would experience lower concentrations of DPM during Project construction, all other receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction activity. All other receptors during construction activity would experience less risk than what is identified for this location.

OPERATIONAL IMPACTS

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project operational-source DPM emissions is Location R1 which is located approximately 755 feet northeast of the Project site at an existing nonconforming residence located at 27555 Ethanac Rd. R1 is placed in the private outdoor living area (backyard) facing the Project site. At this location, the maximum incremental cancer risk attributable to Project operational-source DPM emissions is estimated at 0.38 in one million which would not exceed the SCAQMD's significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be ≤0.01 which would not exceed the applicable significance threshold of 1.0.

Location R1 is the nearest receptor to the Project site and would experience the highest concentrations of DPM from Project operation due to its location and meteorological conditions

at the Project site. Because all other modeled receptors would be exposed to lower concentrations of DPM, all other receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to nearby residences.

Worker Exposure Scenario[1]*:*

The worker receptor land use with the greatest potential exposure to Project operational-source DPM emissions is Location R6, which represents the potential worker receptor located approximately 91 feet north of the Project site. The maximally exposed individual worker (MEIW) is the worker receptor location that would experience the highest modeled concentrations of DPM, and thus the highest risk. At the MEIW, the maximum incremental cancer risk impact is 0.15 in one million which is less than the SCAQMD's threshold of 10 in one million. Maximum non-cancer risks at this same location were estimated to be ≤0.01 which would not exceed the applicable significance threshold of 1.0. Because all other modeled worker receptors would be exposed to lower concentrations of DPM, all other worker receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIW identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent workers.

School Child Exposure Scenario:

Proximity to sources of toxics is critical to determining the impact. In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70-percent drop-off in particulate pollution levels at 500 feet. Based on California Air Resources Board (CARB) and SCAQMD emissions and modeling analyses, an 80-percent drop-off in pollutant concentrations is expected at approximately 1,000 feet from a distribution center (1).

The 1,000-foot evaluation distance is supported by research-based findings concerning Toxic Air Contaminant (TAC) emission dispersion rates from roadways and large sources showing that emissions diminish substantially between 500 and 1,000 feet from emission sources.

A one-quarter mile radius, or 1,320 feet, is commonly utilized for identifying sensitive receptors, such as schools, that may be impacted by a proposed project. This radius is more robust than, and therefore provides a more health protective scenario for evaluation than the 1,000-foot impact radius identified above. Notwithstanding, for full disclosure purposes, the nearest school was also evaluated.

The nearest school and location of the maximally exposed individual school child (MEISC) is Romoland Elementary School, located approximately 3,269 feet northeast of the Project site and represented by Receptor R7. At the MEISC, the maximum incremental cancer risk impact attributable to the Project is calculated to be 0.01 in one million, which is less than the significance threshold of 10 in one million. At this same location, non-cancer risks attributable

1 SCAQMD guidance does not require assessment of the potential health risk to on-site workers. Excerpts from the document OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines—The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2003), also indicate that it is not necessary to examine the health effects to on-site workers unless required by RCRA (Resource Conservation and Recovery Act) / CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) or the worker resides on-site.

to the Project were calculated to be ≤0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled school receptors would be exposed to lower concentrations of DPM, all other school receptors in the vicinity of the of the Project would be exposed to less emissions and therefore less risk than the MEISC identified herein.

CONSTRUCTION AND OPERATIONAL IMPACTS

This analysis considers a conservative scenario in which a child at a nearby residence is exposed to Project construction-related DPM emissions from birth for the expected one year of Project construction, and is then exposed to Project operational emissions for the remaining 29 years of the 30 year residential exposure scenario.

The land use with the greatest potential exposure to Project construction-source and operational-source DPM emissions is Location R5. At the MEIR, the maximum incremental cancer risk attributable to Project construction-source and operational-source DPM emissions is estimated at 0.39 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be ≤0.01 under both scenarios, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction and operational activity. All other receptors during construction and operational activity would experience less risk than what is identified for this location.

TABLE ES-1: SUMMARY OF CONSTRUCTION CANCER AND NON-CANCER RISKS

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
0.91 Year Exposure	Maximum Exposed Sensitive Receptor (Location R5)	0.17	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Annual Average	Maximum Exposed Sensitive Receptor (Location R5)	≤0.01	1.0	NO

TABLE ES-2: SUMMARY OF OPERATIONAL CANCER AND NON-CANCER RISKS

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
30 Year Exposure	Maximum Exposed Sensitive Receptor (Location R1)	0.38	10	NO
25 Year Exposure	Maximum Exposed Worker Receptor (Location R6)	0.15	10	NO

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
9 Year Exposure	Maximum Exposed Individual School Child (Location R7)	0.01	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Annual Average	Maximum Exposed Sensitive Receptor (Location R1)	≤0.01	1.0	NO
Annual Average	Maximum Exposed Worker Receptor (Location R6)	≤0.01	1.0	NO
Annual Average	Maximum Exposed Individual School Child (Location R7)	≤0.01	1.0	NO

TABLE ES-3: SUMMARY OF CONSTRUCTION AND OPERATIONAL CANCER AND NON-CANCER RISKS

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
30 Year Exposure	Maximum Exposed Sensitive Receptor (Location R5)	0.39	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Annual Average	Maximum Exposed Sensitive Receptor (Location R5)	≤0.01	1.0	NO

1 INTRODUCTION

This HRA has been prepared in accordance with the document Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (2) and is comprised of all relevant and appropriate procedures presented by the United States Environmental Protection Agency (U.S. EPA), California EPA and SCAQMD. Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD has established an incidence rate of ten (10) persons per million as the maximum acceptable incremental cancer risk due to TAC exposure from a project such as the proposed Project. This threshold serves to determine whether or not a given project has a potentially significant development-specific and cumulatively considerable impact.

The AQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (3). In this report, the AQMD states (Page D-3):

"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."

The SCAQMD has also established non-carcinogenic risk parameters for use in HRAs. Non-carcinogenic risks are quantified by calculating a "hazard index," expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). A REL is a concentration level at or below which health effects are not likely to occur. A hazard index less of than one (1.0) means that adverse health effects are not expected. In this HRA, non-carcinogenic exposures of less than 1.0 are considered less-than-significant. Both the cancer risk and non-carcinogenic risk thresholds are applied to the nearest sensitive receptors below.

1.1 SITE LOCATION

The proposed Project is located south of Ethanac Road, east of Trumble Road, west of Sherman Road, and north of McLaughlin Road in the City of Menifee as shown on Exhibit 1-A.

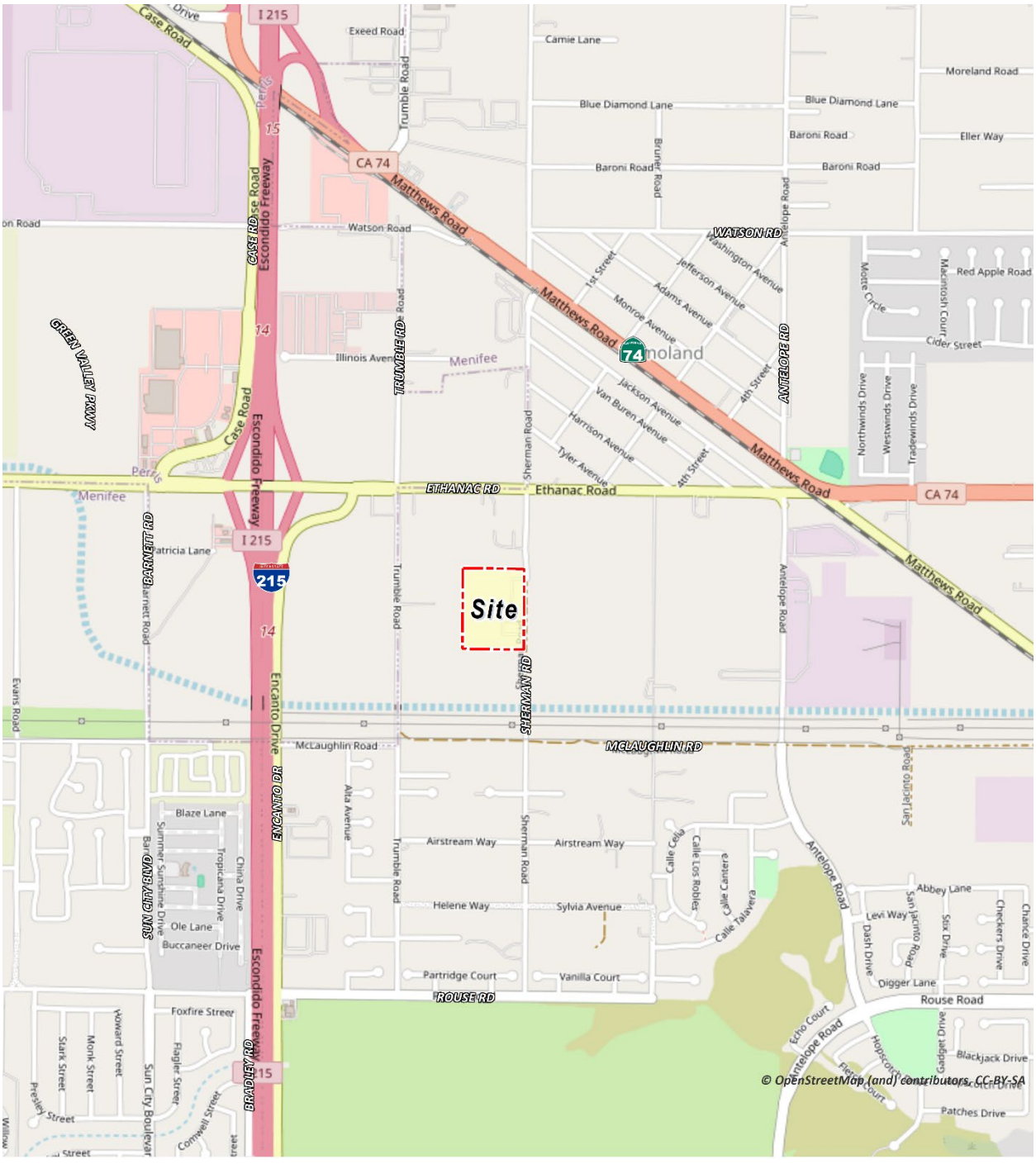
1.2 PROJECT DESCRIPTION

The Project includes the development of a 264,710-square-foot warehouse building which includes 10,000 square feet of office support space on an 11.47-acre site (see Exhibit 1-B). It is our understanding the proposed Project Planning Application consists of a Plot Plan (PLN23-0171), General Plan Amendment (PLN23-0173) to change the land use for a portion of the Project site from Heavy Industrial to Menifee North Specific Plan, Change of Zone (PLN23-0174) to change zoning for a portion of the Project site from Heavy Industrial to Menifee North Specific Plan, and a Specific Plan Amendment (PLN23-0175) to modify the boundary of the existing Menifee North Specific Plan to include the entire Project site and designate it as Planning Area 2 (Industrial). The proposed Project is anticipated to have an Opening Year of 2026.

In addition, to support the Project development, there will be paving for off-site improvements associated with roadway construction and utility installation which includes widening Sherman Road from Ethanac Road to the southern end of the Project.

As summarized in the *Ethanac Business Park Traffic Study Scoping Agreement* prepared by Urban Crossroads, Inc., the Project is expected to generate a total of approximately 456 two-way trips per day which includes 294 two-way passenger car trips per day and 162 two-way truck trips per day (4).

EXHIBIT 1-A: LOCATION MAP

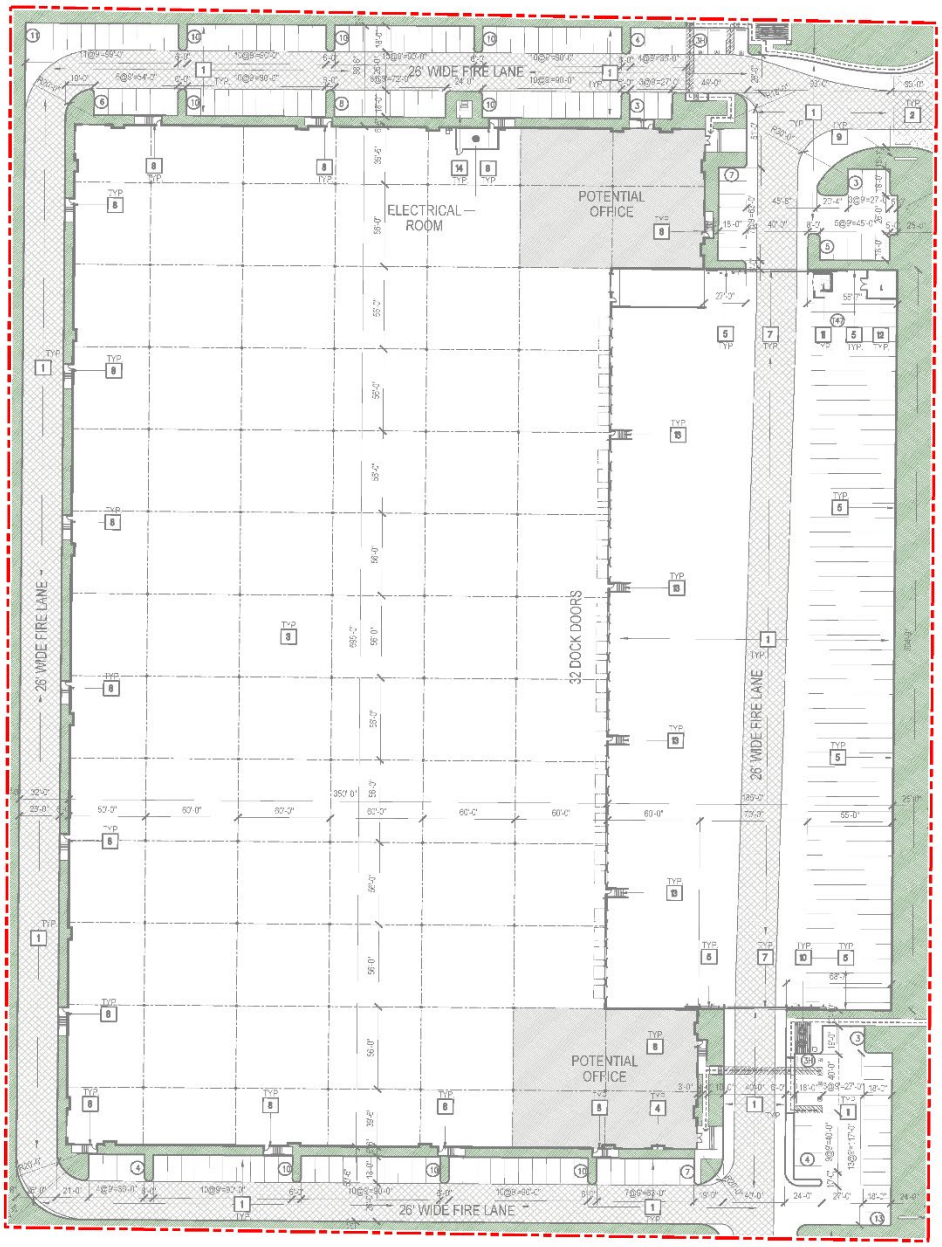


LEGEND:

N

Site Boundary

EXHIBIT 1-B: SITE PLAN



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LEGEND:

Site Boundary

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2 BACKGROUND

2.1 BACKGROUND ON RECOMMENDED METHODOLOGY

This HRA is based on applicable guidelines to produce conservative estimates of human health risk posed by exposure to DPM. The conservative nature of this analysis is due primarily to the following factors:

- The ARB-adopted diesel exhaust Unit Risk Factor (URF) of 300 in one million per $\mu g/m^3$ is based upon the upper 95 percentile of estimated risk for each of the epidemiological studies utilized to develop the URF. Using the 95^{th} percentile URF represents a very conservative (health-protective) risk posed by DPM because it represents breathing rates that are high for the human body.
- The emissions derived assume that every truck accessing the Project site will idle for 15 minutes under the unmitigated scenario, and this is an overestimation of actual idling times and thus conservative.[2] The California Air Resources Board (CARB's) anti-idling requirements impose a 5-minute maximum idling time and therefore the analysis conservatively overestimates DPM emissions from idling by a factor of 5.

2.2 CONSTRUCTION HEALTH RISK ASSESSMENT

2.2.1 EMISSIONS CALCULATIONS

The emissions calculations for the construction HRA component are based on an assumed mix of construction equipment and hauling activity as presented in the *Ethanac Business Park Air Quality Impact Analysis* ("technical study") prepared by Urban Crossroads, Inc. (5)

Construction related DPM emissions are expected to occur primarily as a function of the operation of heavy-duty construction equipment.

As discussed in the technical study, the Project would result in approximately 331 total working-days of construction activity. The construction duration by phase is shown in Table 2-1. A detailed summary of construction equipment assumptions by phase is provided at Table 2-2. The CalEEMod emissions outputs are presented in Appendix 2.1. The modeled emission sources for construction activity are illustrated on Exhibit 2-A. Consistent with SCAQMD's Localized Significance Threshold Methodology (6), DPM emissions from construction equipment were modeled using adjacent volume sources with a release height of 5 meters and an initial vertical dimension of 1.4 meters. On-road truck emissions were modeled as a line source (made up of multiple adjacent volume sources).

[2] An idling time of 15 minutes per truck has been used per SCAQMD recommendations. Although the Project is required to comply with CARB's idling limit of 5 minutes, the SCAQMD recommends the on-site idling emissions should be estimated for 15 minutes of truck idling, which would take into account on-site idling that occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc.

TABLE 2-1: CONSTRUCTION DURATION

Construction Activity	Start Date	End Date	Working Days
Off-site Grading	4/24/2025	6/5/2025	31
Off-site Paving	6/6/2025	7/18/2025	31
Demolition	2/3/2025	2/17/2025	11
Clear Site	2/18/2025	3/4/2025	11
Grading – Building Pad (Rough)	3/5/2025	4/23/2025	36
Grading – Building Pad (Fine) + Site (Rough)	4/24/2025	6/12/2025	36
Building Construction	6/13/2025	10/17/2025	91
Paving	10/20/2025	11/24/2025	26
Architectural Coating	11/25/2025	12/31/2025	27

TABLE 2-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Activity	Equipment	Quantity	Hours Per Day
Off-site Grading	Rubber Tired Dozers	2	8
	Crawler Tractor	3	8
Off-site Paving	Pavers	2	8
	Paving Equipment	2	8
	Roller	2	8
Demolition	Concrete/Industrial Saws	1	8
	Excavators	3	8
	Rubber Tired Dozers	2	8
Clear Site	Rubber Tired Dozers	1	8
Grading – Building Pad (Rough)	Rubber Tired Dozers	1	8
	Scrapers	5	8
Grading – Building Pad (Fine) + Site (Rough)	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
Building Construction	Cranes	1	8
	Forklifts	4	8
	Generator Sets	2	8
	Tractors/Loaders/Backhoes	5	8
	Welders	2	8

Construction Activity	Equipment	Quantity	Hours Per Day
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	2	8

EXHIBIT 2-A: MODELED CONSTRUCTION EMISSION SOURCES

2.3 OPERATIONAL HEALTH RISK ASSESSMENT

2.3.1 ON-SITE AND OFF-SITE TRUCK ACTIVITY

Vehicle DPM emissions were calculated using emission factors for particulate matter less than 10µm in diameter (PM_{10}) generated with the 2021 version of the EMission FACtor model (EMFAC) developed by the CARB. EMFAC 2021 is a mathematical model that CARB developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by CARB to project changes in future emissions from on-road mobile sources (7). The most recent version of this model, EMFAC 2021, incorporates regional motor vehicle data, information and estimates regarding the distribution of vehicle miles traveled (VMT) by speed, and number of starts per day.

Several distinct emission processes are included in EMFAC 2021. Emission factors calculated using EMFAC 2021 are expressed in units of grams per vehicle miles traveled (g/VMT) or grams per idle-hour (g/idle-hr), depending on the emission process. The emission processes and corresponding emission factor units associated with diesel particulate exhaust for this Project are presented below.

For this Project, annual average PM_{10} emission factors were generated by running EMFAC 2021 in EMFAC Mode for vehicles in the Riverside County jurisdiction. The EMFAC Mode generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of temperature, relative humidity, and vehicle speed. The model was run for speeds traveled in the vicinity of the Project. The vehicle travel speeds for each segment modeled are summarized below:

- Idling – on-site loading/unloading and truck trailer parking areas;
- 5 miles per hour – on-site vehicle movement including driving and maneuvering; and
- 25 miles per hour – off-site vehicle movement including driving and maneuvering.

It is expected that minimal idling would occur at nearby intersections during truck travel on study area roadways (e.g., at an intersection during a red light, or yielding to make a turn). Notwithstanding, the analysis conservatively utilizes a reduced off-site average speed of 25 miles per hour (below the posted speed limit) for travel on study area roadways. Use of a lower average speed for off-site travel results in a higher emission factor and therefore any negligible idling that would occur during truck travel along the study area is accounted for.

Calculated emission factors are shown at Table 2-3. As a conservative measure, a 2026 EMFAC 2021 run was conducted and a static 2026 emissions factor data set was used for the entire duration of analysis herein (e.g., 30 years). Use of 2026 emission factors would overstate potential impacts since this approach assumes that emission factors remain “static” and do not change over time due to fleet turnover or cleaner technology with lower emissions that would be incorporated into vehicles after 2026. Additionally, based on EMFAC 2021, Light-Heavy-Duty Trucks are comprised of 59.8% diesel, Medium-Heavy-Duty Trucks are comprised of 92.0% diesel, and Heavy-Heavy-Duty Trucks are comprised of 95.0% diesel. Trucks fueled by diesel are

accounted for by these percentages accordingly in the emissions factor generation. Appendix 2.2 includes additional details on the emissions estimates from EMFAC.

The vehicle DPM exhaust emissions were calculated for running exhaust emissions. The running exhaust emissions were calculated by applying the running exhaust PM_{10} emission factor (g/VMT) from EMFAC over the total distance traveled. The following equation was used to estimate off-site emissions for each of the different vehicle classes comprising the mobile sources (8):

$$Emissions_{Speed\ A} = EF_{Run\ Exhaust} \times Distance \times \frac{Number\ of\ Trips\ per\ Day}{Seconds\ per\ Day}$$

Where:

$Emissions_{Speed\ A}$	=	Vehicle emissions at a given speed A (g/s)
$EF_{Run\ Exhaust}$	=	EMFAC running exhaust PM_{10} emission factor at speed A (g/vmt)
$Distance$	=	Total distance traveled per trip (miles)

Similar to off-site traffic, on-site vehicle running emissions were calculated by applying the running exhaust PM_{10} emission factor (g/VMT) from EMFAC and the total vehicle trip number over the length of the driving path using the same formula presented above for on-site emissions. In addition, on-site vehicle idling exhaust emissions were calculated by applying the idle exhaust PM_{10} emission factor (g/idle-hr) from EMFAC and the total truck trip over the total assumed idle time (15 minutes). The following equation was used to estimate the on-site vehicle idling emissions for each of the different vehicle classes (8):

$$Emissions_{Idle} = EF_{Idle} \times Number\ of\ Trips \times Idling\ Time \times \frac{60\ minutes\ per\ hour}{seconds\ per\ day}$$

Where:

$Emissions_{Idle}$	=	Vehicle emissions during Idling (g/s)
EF_{Idle}	=	EMFAC idle exhaust PM_{10} emission factor (g/s)
$Number\ of\ Trips$	=	Number of trips per day
$Idling\ Time$	=	Idling time (minutes per trip)

TABLE 2-3: 2026 WEIGHTED AVERAGE DPM EMISSIONS FACTORS

Speed	Weighted Average
0 (idling)	0.04585 (g/idle-hr)
5	0.01633 (g/mile)
25	0.00723 (g/mile)

Each roadway was modeled as a line source (made up of multiple adjacent volume sources). Due to the large number of volume sources modeled for this analysis, the corresponding coordinates

of each volume source have not been included in this report but are included in Appendix 2.3. The DPM emission rate for each line volume source was calculated by multiplying the emission factor (based on the average travel speed along the roadway) by the number of trips and the distance traveled along each roadway segment, as illustrated in Table 2-4. In order to model idling emissions, line sources were modeled at the building loading docks and tractor trailer parking stalls. The modeled emission sources are illustrated on Exhibit 2-B for on-site sources and Exhibit 2-C for off-site sources. The modeling domain is limited to the Project's primary truck route and includes off-site sources in the study area for more than ¾ mile. This modeling domain is more inclusive and conservative than using only a ¼ mile modeling domain which is the distance supported by several reputable studies which conclude that the greatest potential risks occur within a ¼ mile of the primary source of emissions (1) In the case of the Project, the primary source of emissions is the on-site idling and on-site travel.

On-site truck idling was estimated to occur at building loading docks as well as in truck trailer parking areas. Although the Project's diesel-fueled truck and equipment operators will be required by State law to comply with CARB's idling limit of 5 minutes, staff at SCAQMD recommends that the on-site idling emissions be calculated assuming 15 minutes of truck idling (9), which would take into account on-site idling which occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc. As such, this analysis calculates truck idling at 15 minutes, consistent with SCAQMD's recommendation. Idling emissions at building loading docks were modeled in AERMOD as line sources, which consist of multiple adjacent volume sources.

As summarized in the *Ethanac Business Park Traffic Study Scoping Agreement* prepared by Urban Crossroads, Inc., the Project is expected to generate a total of approximately 456 actual vehicular trip-ends per day (228 vehicles inbound + 228 vehicles outbound) which includes 294 passenger vehicle trips (147 passenger vehicles inbound + 147 passenger vehicles outbound) and 162 two-way truck trips (81 trucks inbound per day + 81 trucks outbound) per day (4).

2.3.2 EMERGENCY FIRE PUMPS

It is conservatively assumed that the proposed Project would include installation of an emergency fire pump, as shown on Exhibit 2-B. The fire pump would be diesel fueled and potentially would result in exposure of sensitive receptors to DPM. Based on the CalEEMod output presented in the Project air quality impact analysis, it is estimated that the fire pump would be rated at 300 brake horsepower (bhp). The analysis assumed that the fire pump could potentially operate for up to one hour per day, one day per week, for a total of 50 hours per year for maintenance and testing purposes. Consistent with SCAQMD guidance, the emergency fire pump was modeled as a point source. Because detailed engine specifications are not known at this time, release parameters (including exhaust height, diameter, temperature, and flow rate) were obtained from the California Air Pollution Control Officers Association Facility Prioritization Guidelines (10).

EXHIBIT 2-B: MODELED ON-SITE EMISSION SOURCES

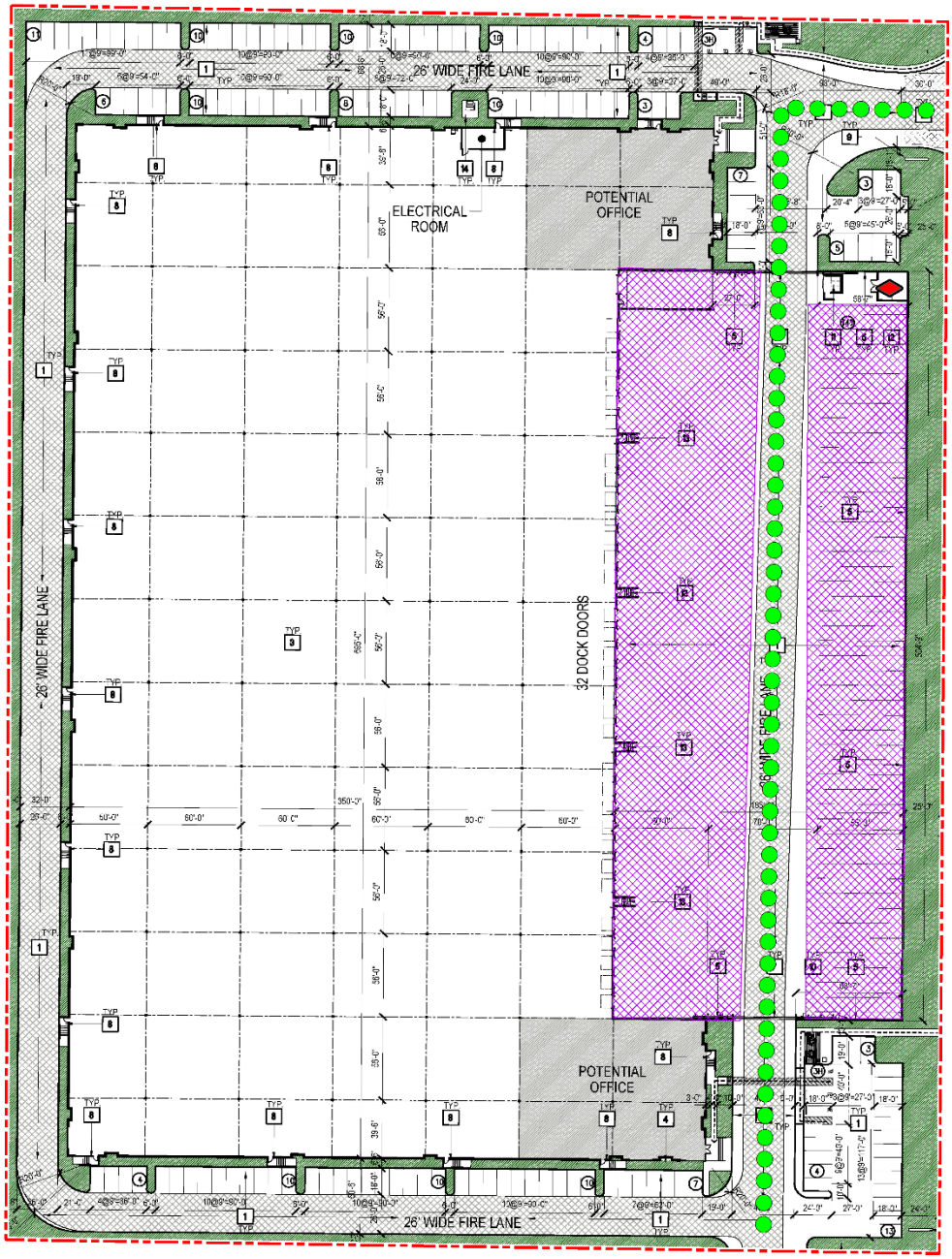

EXHIBIT 2-C: MODELED OFF-SITE EMISSION SOURCES

TABLE 2-4: DPM EMISSIONS FROM PROJECT TRUCKS

Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - North Loading Docks	81			0.0875	1.77	2.051E-05
On-Site Idling - Trailer Parking	81			0.0875	0.59	6.836E-06
On-Site Travel	162	26.49	0.0209		0.55	6.412E-06
Off-Site Travel - Sherman Rd. (N) / Ethanac Rd. (W) 100%	162	124.17	0.0089		1.11	1.286E-05
Off-Site Travel - I-215 N Bound 60%	97	17.31	0.0089		0.15	1.793E-06
Off-Site Travel - I-215 S Bound 40%	65	19.09	0.0089		0.17	1.977E-06

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2021. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes at loading docks and 5 minutes at trailer parking areas.

2.4 EXPOSURE QUANTIFICATION

The analysis herein has been conducted in accordance with the guidelines in the Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (2). The Environmental Protection Agency's (U.S. EPA's) AERMOD model has been utilized. For purposes of this analysis, the Lakes AERMOD View (Version 12.0.0) was used to calculate annual average particulate concentrations associated with site operations. Lakes AERMOD View was utilized to incorporate the U.S. EPA's latest AERMOD Version 23132 (11).

The model offers additional flexibility by allowing the user to assign an initial release height and vertical dispersion parameters for mobile sources representative of a roadway. For this HRA, the roadways were modeled as adjacent volume sources. Roadways were modeled using the U.S. EPA's haul route methodology for modeling of on-site and off-site truck movement. More specifically, the Haul Road Volume Source Calculator in Lakes AERMOD View has been utilized to determine the release height parameters. Based on the US EPA methodology, the Project's modeled sources would result in a release height of 3.49 meters and an initial lateral dimension of 4.0 meters, and an initial vertical dimension of 3.25 meters.

Model parameters are presented in Table 2-5 (12). The model requires additional input parameters including emission data and local meteorology. Meteorological data from the SCAQMD's Perris monitoring station was used to represent local weather conditions and prevailing winds (13).

TABLE 2-5: AERMOD MODEL PARAMETERS

Dispersion Coefficient (Urban/Rural)	Urban (population 2,189,641)
Terrain (Flat/Elevated)	Elevated (Regulatory Default)
Averaging Time	1 year (5-year Meteorological Data Set)
Receptor Height	0 meters (Regulatory Default)

Universal Transverse Mercator (UTM) coordinates for World Geodetic System (WGS) 84 were used to locate the Project site boundaries, each volume source location, and receptor locations in the Project vicinity. The AERMOD dispersion model summary output files for the Project are presented in Appendix 2.3. Modeled sensitive receptors were placed at residential and non-residential locations.

Receptors may be placed at applicable structure locations for residential and worker property and not necessarily the boundaries of the properties containing these uses because the human receptors (residents and workers) spend a majority of their time at the residence or in the workplace's building, and not on the property line. It should be noted that the primary purpose of receptor placement is focused on long-term exposure. For example, the HRA evaluates the potential health risks to residents, workers and school children over a period of 30, 25, or 9 years of exposure, respectively. Notwithstanding, as a conservative measure, receptors were placed at either the outdoor living area or the building façade, whichever is closer to the Project site.

Discrete receptors were placed in all directions nearest to the Project site and Project truck routes in order to account for the predominant wind directions in the Project vicinity.

For purposes of this HRA, receptors include both residential and non-residential (worker) land uses in the vicinity of the Project. These receptors are included in the HRA since residents, workers, and school children may be exposed at these locations over a long-term duration of 30, 25, and 9 years, respectively. This methodology is consistent with SCAQMD and OEHHA recommended guidance.

Any impacts to residents or workers located further away from the Project site than the modeled residential and workers in a given direction would have a lesser impact than what has already been disclosed in the HRA at the MEIR, MEISC and MEIW because concentrations dissipate with distance.

All receptors were set to existing elevation height so that only ground-level concentrations are analyzed. United States Geological Survey (USGS) Digital Elevation Model (DEM) terrain data based on a 7.5-minute topographic quadrangle map series using AERMAP was utilized in the HRA modeling to set elevations (14).

Discrete variants for daily breathing rates, exposure frequency, fraction of time at home, and exposure duration were obtained from relevant distribution profiles presented in the 2015 OEHHA Guidelines. Tables 2-6 through 2-8 summarize the Exposure Parameters for residents and workers based on 2015 OEHHA Guidelines. Appendix 2.4 includes the detailed risk calculation.

TABLE 2-6: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (CONSTRUCTION ACTIVITY)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (days/year)	Exposure Time (hours/day)
0 to 2	1,090	10	0.91	0.91	250	8

TABLE 2-7: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (30 YEAR RESIDENTIAL)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (days/year)	Exposure Time (hours/day)
-0.25 to 0	361	10	0.25	0.85	350	24
0 to 2	1,090	10	2	0.85	350	24
2 to 16	572	3	14	0.72	350	24
16 to 30	261	1	14	0.73	350	24

TABLE 2-8: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (25 YEAR WORKER)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Exposure Frequency (days/year)	Exposure Time (hours/day)
16 to 41	230	1	25	250	12

2.5 CARCINOGENIC CHEMICAL RISK

Excess cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens over a specified exposure duration. The estimated risk is expressed as a unitless probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 10 in one million implies a likelihood that up to 10 people out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time.

Guidance from CARB and the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) recommends a refinement to the standard point estimate approach when alternate human body weights and breathing rates are utilized to assess risk for susceptible subpopulations such as children. For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose. Once determined, contaminant dose is multiplied by the cancer potency factor (CPF) in units of inverse dose expressed in milligrams per kilogram per day $(mg/kg/day)^{-1}$ to derive the cancer risk estimate. Therefore, to assess exposures, the following dose algorithm was utilized.

$$DOSE_{AIR} = \left(C_{AIR} \times \frac{BR}{BW} \times A \times EF\right) \times (1 \times 10^{-6})$$

Where:

$DOSE_{AIR}$ = chronic daily intake (mg/kg/day)

C_{AIR} = concentration of contaminant in air ($\mu g/m^3$)

$\frac{BR}{BW}$ = daily breathing rate normalized to body weight (L/kg BW-day)

A = inhalation absorption factor

EF = exposure frequency (days/365 days)

BW = body weight (kg)

1×10^{-6} = conversion factors (µg to mg, L to m^3)

$$RISK_{AIR} = DOSE_{AIR} \times CPF \times ASF \times FAH \times \frac{ED}{AT}$$

Where:

$DOSE_{AIR}$	=	chronic daily intake (mg/kg/day)
CPF	=	cancer potency factor
ASF	=	age sensitivity factor
FAH	=	fraction of time at home
ED	=	number of years within particular age group
AT	=	averaging time

2.6 NON-CARCINOGENIC EXPOSURES

An evaluation of the potential noncarcinogenic effects of chronic exposures was also conducted. Adverse health effects are evaluated by comparing a compound's annual concentration with its toxicity factor or Reference Exposure Level (REL). The REL for diesel particulates was obtained from OEHHA for this analysis. The chronic reference exposure level (REL) for DPM was established by OEHHA as 5 µg/m^3 (15).

Non-cancer health effects are expressed as a hazard index (HI), which is calculated using the following equation:

$$HI_{DPM} = \frac{C_{DPM}}{REL_{DPM}}$$

Where:

HI_{DPM}	=	Hazard index (unitless)
C_{DPM}	=	Annual average DPM concentration (µg/m^3)
REL_{DPM}	=	REL for DPM (the DPM concentration at which no adverse health effects are anticipated).

2.7 POTENTIAL PROJECT DPM-SOURCE CANCER AND NON-CANCER RISKS

CONSTRUCTION IMPACTS

The land use with the greatest potential exposure to Project construction-source DPM emissions is Location R5 which is located approximately 581 feet west of the Project site at an existing residence located at 26228 Trumble Rd. R5 is placed in the private outdoor living areas (backyard) facing the Project site. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project construction-source DPM emissions is estimated at 0.17 in one million, which is less than the South Coast Air Quality Management District

(SCAQMD) significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be ≤0.01, which would not exceed the applicable threshold of 1.0.

Location R5 is the nearest receptor to the Project site and would experience the highest concentrations of DPM during Project construction due to its location and meteorological conditions at the site. Because all other modeled receptors would experience lower concentrations of DPM during Project construction, all other receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction activity. All other receptors during construction activity would experience less risk than what is identified for this location. The modeled receptors are illustrated on Exhibit 2-D.

OPERATIONAL IMPACTS

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project operational-source DPM emissions is Location R1 which is located approximately 755 feet northeast of the Project site at an existing residence located at 27555 Ethanac Rd. R1 is placed in the private outdoor living area (backyard) facing the Project site. At this location, the maximum incremental cancer risk attributable to Project operational-source DPM emissions is estimated at 0.38 in one million which would not exceed the SCAQMD's significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be ≤0.01 which would not exceed the applicable significance threshold of 1.0.

Location R1 is the nearest receptor to the Project site and would experience the highest concentrations of DPM from Project operation due to its location and meteorological conditions at the Project site. Because all other modeled receptors would be exposed to lower concentrations of DPM, all other receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to nearby residences. The modeled receptors are illustrated on Exhibit 2-D.

Worker Exposure Scenario[3]*:*

The worker receptor land use with the greatest potential exposure to Project operational-source DPM emissions is Location R6, which represents the potential worker receptor located approximately 91 feet north of the Project site. The maximally exposed individual worker (MEIW) is the worker receptor location that would experience the highest modeled concentrations of DPM, and thus the highest risk. At the MEIW, the maximum incremental cancer risk impact is 0.15 in one million which is less than the SCAQMD's threshold of 10 in one million. Maximum

3 SCAQMD guidance does not require assessment of the potential health risk to on-site workers. Excerpts from the document OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines—The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2003), also indicate that it is not necessary to examine the health effects to on-site workers unless required by RCRA (Resource Conservation and Recovery Act) / CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) or the worker resides on-site.

non-cancer risks at this same location were estimated to be ≤0.01 which would not exceed the applicable significance threshold of 1.0. Because all other modeled worker receptors would be exposed to lower concentrations of DPM, all other worker receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIW identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent workers. The modeled receptors are illustrated on Exhibit 2-D.

School Child Exposure Scenario:

Proximity to sources of toxics is critical to determining the impact. In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70-percent drop-off in particulate pollution levels at 500 feet. Based on California Air Resources Board (CARB) and SCAQMD emissions and modeling analyses, an 80-percent drop-off in pollutant concentrations is expected at approximately 1,000 feet from a distribution center (1).

The 1,000-foot evaluation distance is supported by research-based findings concerning Toxic Air Contaminant (TAC) emission dispersion rates from roadways and large sources showing that emissions diminish substantially between 500 and 1,000 feet from emission sources.

A one-quarter mile radius, or 1,320 feet, is commonly utilized for identifying sensitive receptors, such as schools, that may be impacted by a proposed project. This radius is more robust than, and therefore provides a more health protective scenario for evaluation than the 1,000-foot impact radius identified above. Notwithstanding, for full disclosure purposes, the nearest school was also evaluated.

The nearest school and location of the maximally exposed individual school child (MEISC) is Romoland Elementary School, located approximately 3,269 feet northeast of the Project site and represented by Receptor R7. At the MEISC, the maximum incremental cancer risk impact attributable to the Project is calculated to be 0.01 in one million, which is less than the significance threshold of 10 in one million. At this same location, non-cancer risks attributable to the Project were calculated to be ≤0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled school receptors would be exposed to lower concentrations of DPM, all other school receptors in the vicinity of the of the Project would be exposed to less emissions and therefore less risk than the MEISC identified herein. The modeled receptors are illustrated on Exhibit 2-D.

CONSTRUCTION AND OPERATIONAL IMPACTS

This analysis considers a conservative scenario in which a child at a nearby residence is exposed to Project construction-related DPM emissions from birth for the expected one year of Project construction and is then exposed to Project operational emissions for the remaining 29 years of the 30-year residential exposure scenario.

The land use with the greatest potential exposure to Project construction-source and operational-source DPM emissions is Location R5. At the MEIR, the maximum incremental cancer risk attributable to Project construction-source and operational-source DPM emissions is

estimated at 0.39 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be ≤0.01 under both scenarios, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction and operational activity. All other receptors during construction and operational activity would experience less risk than what is identified for this location. The modeled receptors are illustrated on Exhibit 2-D.

It should be noted that for clarity purposes, the receptors presented in Exhibit 2-D do not represent all modeled receptors and instead presents the nearest receptors that would experience the highest pollutant concentrations. A total of 46 receptors were modeled in the analysis. Appendix 2.5 presents a figure detailing the locations of all receptors as modeled in AERMOD.

EXHIBIT 2-D: RECEPTOR LOCATIONS

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3 REFERENCES

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4 CERTIFICATIONS

The contents of this health risk assessment represent an accurate depiction of the impacts to sensitive receptors associated with the proposed Ethanac Business Park. The information contained in this health risk assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me at (949) 660-1994.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May 2010

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University of California, Irvine • June 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Professionals
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Environmental Site Assessment – American Society for Testing and Materials • June 2013
Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
Air Dispersion Modeling – Lakes Environmental • June 2006

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APPENDIX 2.1:

CALEEMOD OUTPUTS

15796 - Ethanac Business Park Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15796 - Ethanac Business Park
Construction Start Date	9/2/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	0.20
Location	33.73974846447821, -117.18160035687643
County	Riverside-South Coast
City	Menifee
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5517
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Unrefrigerated Warehouse-No Rail	265	1000sqft	6.08	264,710	58,864	—	—	Passenger Car Trips
Parking Lot	215	Space	1.22	0.00	0.00	—	—	—
Other Asphalt Surfaces	4.18	Acre	4.18	0.00	0.00	—	—	—
Road Widening	0.35	Mile	3.00	0.00	0.00	—	—	—
User Defined Industrial	265	User Defined Unit	0.00	0.00	0.00	—	—	Truck Trips

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.42	1.30	26.7	54.5	0.10	0.25	6.58	6.76	0.23	2.83	3.02	—	11,274	11,274	0.45	0.18	7.92	11,325
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.31	48.0	26.8	54.2	0.10	0.25	3.34	3.55	0.24	1.09	1.30	—	11,257	11,257	0.45	0.44	0.19	11,307
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.59	4.16	10.8	20.4	0.03	0.11	1.50	1.61	0.10	0.51	0.61	—	4,019	4,019	0.16	0.09	1.11	4,050
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.11	0.76	1.97	3.71	0.01	0.02	0.27	0.29	0.02	0.09	0.11	—	665	665	0.03	0.01	0.18	671

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.42	1.30	26.7	54.5	0.10	0.25	6.58	6.76	0.23	2.83	3.02	—	11,274	11,274	0.45	0.18	7.92	11,325
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.31	48.0	26.8	54.2	0.10	0.25	3.34	3.55	0.24	1.09	1.30	—	11,257	11,257	0.45	0.44	0.19	11,307
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.59	4.16	10.8	20.4	0.03	0.11	1.50	1.61	0.10	0.51	0.61	—	4,019	4,019	0.16	0.09	1.11	4,050
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.11	0.76	1.97	3.71	0.01	0.02	0.27	0.29	0.02	0.09	0.11	—	665	665	0.03	0.01	0.18	671

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.10	10.5	17.3	35.5	0.17	0.41	8.15	8.55	0.39	2.12	2.51	251	19,811	20,062	26.0	2.44	51.9	21,491
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.98	8.53	17.9	20.7	0.17	0.39	8.15	8.53	0.37	2.12	2.49	251	19,461	19,712	26.0	2.45	1.35	21,092

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.94	8.57	11.6	21.9	0.12	0.21	5.96	6.17	0.20	1.55	1.75	251	14,431	14,682	25.8	1.87	16.4	15,903
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.54	1.56	2.12	4.00	0.02	0.04	1.09	1.13	0.04	0.28	0.32	41.6	2,389	2,431	4.28	0.31	2.71	2,633

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.97	1.57	14.4	21.5	0.17	0.24	8.15	8.39	0.23	2.12	2.35	—	17,660	17,660	0.35	2.13	51.9	18,357
Area	2.05	7.93	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Stationary	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	5.10	10.5	17.3	35.5	0.17	0.41	8.15	8.55	0.39	2.12	2.51	251	19,811	20,062	26.0	2.44	51.9	21,491
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.90	1.51	15.1	18.2	0.16	0.24	8.15	8.39	0.23	2.12	2.35	—	17,358	17,358	0.35	2.14	1.35	18,006
Area	—	6.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469

Stationar	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	2.98	8.53	17.9	20.7	0.17	0.39	8.15	8.53	0.37	2.12	2.49	251	19,461	19,712	26.0	2.45	1.35	21,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.39	1.10	11.2	13.7	0.12	0.18	5.96	6.13	0.17	1.55	1.72	—	12,730	12,730	0.26	1.57	16.4	13,220
Area	1.40	7.33	0.07	7.88	< 0.005	0.01	—	0.01	0.01	—	0.01	—	32.4	32.4	< 0.005	< 0.005	—	32.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Stationary	0.15	0.13	0.38	0.34	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	69.0	69.0	< 0.005	< 0.005	0.00	69.2
Total	2.94	8.57	11.6	21.9	0.12	0.21	5.96	6.17	0.20	1.55	1.75	251	14,431	14,682	25.8	1.87	16.4	15,903
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.25	0.20	2.04	2.50	0.02	0.03	1.09	1.12	0.03	0.28	0.31	—	2,108	2,108	0.04	0.26	2.71	2,189
Area	0.26	1.34	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	199	199	0.02	< 0.005	—	200
Water	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150
Waste	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7
Stationary	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5
Total	0.54	1.56	2.12	4.00	0.02	0.04	1.09	1.13	0.04	0.28	0.32	41.6	2,389	2,431	4.28	0.31	2.71	2,633

3. Construction Emissions Details

3.1. Off-Site Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	0.47	10.9	20.8	0.04	0.07	—	0.07	0.07	—	0.07	—	3,802	3,802	0.15	0.03	—	3,815
Dust From Material Movement	—	—	—	—	—	—	3.82	3.82	—	1.80	1.80	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.93	1.77	< 0.005	0.01	—	0.01	0.01	—	0.01	—	323	323	0.01	< 0.005	—	324
Dust From Material Movement	—	—	—	—	—	—	0.32	0.32	—	0.15	0.15	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.17	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	53.5	53.5	< 0.005	< 0.005	—	53.6
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.97	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	176	176	0.01	0.01	0.65	179
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.6	30.6	< 0.005	< 0.005	0.09	32.1
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.9	13.9	< 0.005	< 0.005	0.02	14.1
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.60	2.60	< 0.005	< 0.005	< 0.005	2.72
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.31	2.31	< 0.005	< 0.005	< 0.005	2.34
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.45
Hauling	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	0.00

3.3. Off-Site Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,517
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.61	0.90	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.11	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	1.16	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	211	211	0.01	0.01	0.78	215
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.03	17.0
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.77	2.77	< 0.005	< 0.005	< 0.005	2.81
Vendor	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	0.00

Hauling	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	0.00

3.5. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41	0.41	11.9	18.2	0.03	0.20	—	0.20	0.19	—	0.19	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.59	1.59	—	0.24	0.24	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.36	0.55	< 0.005	0.01	—	0.01	0.01	—	0.01	—	103	103	< 0.005	< 0.005	—	104
Demolition	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.1	17.1	< 0.005	< 0.005	—	17.1
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	61.2	61.2	< 0.005	0.01	< 0.005	64.0
Hauling	0.08	0.03	2.67	0.51	0.02	0.05	0.66	0.71	0.05	0.19	0.24	—	2,503	2,503	0.04	0.39	0.14	2,621
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.93	5.93	< 0.005	< 0.005	0.01	6.02
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.93
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	75.4	75.4	< 0.005	0.01	0.07	79.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.98	0.98	< 0.005	< 0.005	< 0.005	1.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.5	12.5	< 0.005	< 0.005	0.01	13.1

3.7. Clear Site (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	3.34	6.73	0.01	0.03	—	0.03	0.03	—	0.03	—	1,378	1,378	0.06	0.01	—	1,383
Dust From Material Movement	—	—	—	—	—	—	1.70	1.70	—	0.88	0.88	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.10	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.5	41.5	< 0.005	< 0.005	—	41.7
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.87	6.87	< 0.005	< 0.005	—	6.90
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.4	32.4	< 0.005	< 0.005	< 0.005	32.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	61.2	61.2	< 0.005	0.01	< 0.005	64.0
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.93
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
Hauling	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	0.00

3.9. Grading - Building Pad (Rough) (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.23	26.4	53.3	0.10	0.20	—	0.20	0.20	—	0.20	—	10,849	10,849	0.44	0.09	—	10,886
Dust From Material Movement	—	—	—	—	—	—	3.08	3.08	—	1.02	1.02	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.23	26.4	53.3	0.10	0.20	—	0.20	0.20	—	0.20	—	10,849	10,849	0.44	0.09	—	10,886
Dust From Material Movement	—	—	—	—	—	—	3.08	3.08	—	1.02	1.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.12	2.61	5.26	0.01	0.02	—	0.02	0.02	—	0.02	—	1,070	1,070	0.04	0.01	—	1,074
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.48	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	177	177	0.01	< 0.005	—	178
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	1.16	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	211	211	0.01	0.01	0.78	215

Vendor	0.01	< 0.005	0.24	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	214	214	< 0.005	0.03	0.61	225
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	0.01	< 0.005	0.25	0.08	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	214	214	< 0.005	0.03	0.02	224
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	0.03	19.7
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.03	22.1
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.21	3.21	< 0.005	< 0.005	0.01	3.26
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.50	3.50	< 0.005	< 0.005	< 0.005	3.66
Hauling	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	0.00

3.11. Grading – Building Pad (Fine) + Site (Rough) (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.67	14.9	29.3	0.05	0.11	—	0.11	0.11	—	0.11	—	5,735	5,735	0.23	0.05	—	5,754

Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	1.47	2.89	0.01	0.01	—	0.01	0.01	—	0.01	—	566	566	0.02	< 0.005	—	568
Dust From Material Movement	—	—	—	—	—	—	0.24	0.24	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.27	0.53	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.6	93.6	< 0.005	< 0.005	—	94.0
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.77	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	141	141	0.01	< 0.005	0.52	143
Vendor	0.01	< 0.005	0.24	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	214	214	< 0.005	0.03	0.61	225
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.9	12.9	< 0.005	< 0.005	0.02	13.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.03	22.1
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.14	2.14	< 0.005	< 0.005	< 0.005	2.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.50	3.50	< 0.005	< 0.005	< 0.005	3.66
Hauling	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	0.00

3.13. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.49	14.1	22.3	0.04	0.15	—	0.15	0.15	—	0.15	—	3,675	3,675	0.15	0.03	—	3,688
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.49	14.1	22.3	0.04	0.15	—	0.15	0.15	—	0.15	—	3,675	3,675	0.15	0.03	—	3,688
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.12	3.52	5.56	0.01	0.04	—	0.04	0.04	—	0.04	—	916	916	0.04	0.01	—	919
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.64	1.01	< 0.005	0.01	—	0.01	0.01	—	0.01	—	152	152	0.01	< 0.005	—	152
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60	0.50	0.49	8.59	0.00	0.00	1.45	1.45	0.00	0.34	0.34	—	1,567	1,567	0.06	0.06	5.76	1,591
Vendor	0.02	0.01	0.54	0.17	< 0.005	0.01	0.14	0.14	0.01	0.04	0.05	—	490	490	0.01	0.07	1.39	513
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.53	0.47	0.54	6.49	0.00	0.00	1.45	1.45	0.00	0.34	0.34	—	1,440	1,440	0.07	0.06	0.15	1,459
Vendor	0.02	0.01	0.56	0.17	< 0.005	0.01	0.14	0.14	0.01	0.04	0.05	—	490	490	0.01	0.07	0.04	512
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.15	1.71	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	364	364	0.02	0.01	0.62	369
Vendor	0.01	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	122	122	< 0.005	0.02	0.15	128
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.03	0.31	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	60.2	60.2	< 0.005	< 0.005	0.10	61.1

Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.2	20.2	< 0.005	< 0.005	0.02	21.2
Hauling	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	0.00

3.15. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.51	0.76	< 0.005	0.01	—	0.01	0.01	—	0.01	—	108	108	< 0.005	< 0.005	—	108
Paving	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.09	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.8	17.8	< 0.005	< 0.005	—	17.9
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	0.01	< 0.005	0.18	0.05	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	153	153	< 0.005	0.02	0.01	160
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.02	14.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.9	10.9	< 0.005	< 0.005	0.01	11.4
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.32	2.32	< 0.005	< 0.005	< 0.005	2.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.80	1.80	< 0.005	< 0.005	< 0.005	1.89
Hauling	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	0.00

3.17. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.06	0.06	2.85	2.57	< 0.005	0.08	—	0.08	0.08	—	0.08	—	356	356	0.01	< 0.005	—	357
Architectural Coatings	—	47.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.21	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.3	26.3	< 0.005	< 0.005	—	26.4
Architectural Coatings	—	3.54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.36	4.36	< 0.005	< 0.005	—	4.38
Architectural Coatings	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.09	0.11	1.30	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	288	288	0.01	0.01	0.03	292
Vendor	0.01	< 0.005	0.18	0.05	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	153	153	< 0.005	0.02	0.01	160
Hauling	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.6	21.6	< 0.005	< 0.005	0.04	21.9
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.01	11.9
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.57	3.57	< 0.005	< 0.005	0.01	3.62
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.87	1.87	< 0.005	< 0.005	< 0.005	1.96
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.40	1.26	0.83	17.7	0.04	0.02	3.88	3.90	0.02	0.98	1.00	—	3,992	3,992	0.12	0.09	13.2	4,034
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00

User Defined Industrial	0.57	0.32	13.6	3.82	0.13	0.22	4.26	4.48	0.21	1.14	1.35	—	13,668	13,668	0.22	2.05	38.7	14,322
Total	1.97	1.57	14.4	21.5	0.17	0.24	8.15	8.39	0.23	2.12	2.35	—	17,660	17,660	0.35	2.13	51.9	18,357
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.34	1.20	0.92	14.3	0.04	0.02	3.88	3.90	0.02	0.98	1.00	—	3,686	3,686	0.13	0.09	0.34	3,717
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.56	0.31	14.2	3.84	0.13	0.22	4.26	4.49	0.21	1.14	1.35	—	13,672	13,672	0.22	2.05	1.00	14,289
Total	1.90	1.51	15.1	18.2	0.16	0.24	8.15	8.39	0.23	2.12	2.35	—	17,358	17,358	0.35	2.14	1.35	18,006
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.18	0.16	0.13	1.99	< 0.005	< 0.005	0.52	0.52	< 0.005	0.13	0.13	—	452	452	0.02	0.01	0.69	456
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.08	0.04	1.92	0.51	0.02	0.03	0.57	0.60	0.03	0.15	0.18	—	1,656	1,656	0.03	0.25	2.03	1,732
Total	0.25	0.20	2.04	2.50	0.02	0.03	1.09	1.12	0.03	0.28	0.31	—	2,108	2,108	0.04	0.26	2.71	2,189

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,156	1,156	0.11	0.01	—	1,162
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	44.2	44.2	< 0.005	< 0.005	—	44.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,200	1,200	0.11	0.01	—	1,207
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,156	1,156	0.11	0.01	—	1,162
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	44.2	44.2	< 0.005	< 0.005	—	44.4

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,200	1,200	0.11	0.01	—	1,207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	191	191	0.02	< 0.005	—	192
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	7.31	7.31	< 0.005	< 0.005	—	7.35
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	199	199	0.02	< 0.005	—	200

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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

Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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

Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.05	1.89	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Total	2.05	7.93	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39
Total	0.26	1.34	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5
Total	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Off-Site Grading	Linear, Grading & Excavation	4/24/2025	6/5/2025	5.00	31.0	—
Off-Site Paving	Linear, Paving	6/6/2025	7/18/2025	5.00	31.0	—
Demolition	Demolition	2/3/2025	2/17/2025	5.00	11.0	—
Clear Site	Site Preparation	2/18/2025	3/4/2025	5.00	11.0	—

Grading - Building Pad (Rough)	Grading	3/5/2025	4/23/2025	5.00	36.0	—
Grading – Building Pad (Fine) + Site (Rough)	Grading	4/24/2025	6/12/2025	5.00	36.0	—
Building Construction	Building Construction	6/13/2025	10/17/2025	5.00	91.0	—
Paving	Paving	10/20/2025	11/24/2025	5.00	26.0	—
Architectural Coating	Architectural Coating	11/25/2025	12/31/2025	5.00	27.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Off-Site Grading	Crawler Tractors	Diesel	Tier 4 Interim	3.00	8.00	87.0	0.43
Off-Site Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40
Off-Site Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Off-Site Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Off-Site Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Tier 4 Interim	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Clear Site	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading - Building Pad (Rough)	Scrapers	Diesel	Tier 4 Interim	5.00	8.00	423	0.48
Grading - Building Pad (Rough)	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading – Building Pad (Fine) + Site (Rough)	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading – Building Pad (Fine) + Site (Rough)	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40

Grading – Building Pad (Fine) + Site (Rough)	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Building Construction	Forklifts	Diesel	Tier 4 Interim	4.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Interim	2.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	8.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Interim	2.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	5.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	2.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	2.00	10.2	HHDT,MHDT
Demolition	Hauling	18.4	40.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Clear Site	—	—	—	—
Clear Site	Worker	2.50	18.5	LDA,LDT1,LDT2
Clear Site	Vendor	2.00	10.2	HHDT,MHDT
Clear Site	Hauling	0.00	20.0	HHDT
Clear Site	Onsite truck	—	—	HHDT
Grading - Building Pad (Rough)	—	—	—	—

Grading - Building Pad (Rough)	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading - Building Pad (Rough)	Vendor	7.00	10.2	HHDT,MHDT
Grading - Building Pad (Rough)	Hauling	0.00	20.0	HHDT
Grading - Building Pad (Rough)	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	111	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	16.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	5.00	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	22.2	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	5.00	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Grading – Building Pad (Fine) + Site (Rough)	—	—	—	—
Grading – Building Pad (Fine) + Site (Rough)	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading – Building Pad (Fine) + Site (Rough)	Vendor	7.00	10.2	HHDT,MHDT
Grading – Building Pad (Fine) + Site (Rough)	Hauling	0.00	20.0	HHDT
Grading – Building Pad (Fine) + Site (Rough)	Onsite truck	—	—	HHDT

Off-Site Grading	—	—	—	—
Off-Site Grading	Worker	12.5	18.5	LDA,LDT1,LDT2
Off-Site Grading	Vendor	1.00	10.2	HHDT,MHDT
Off-Site Grading	Hauling	0.00	20.0	HHDT
Off-Site Grading	Onsite truck	—	—	HHDT
Off-Site Paving	—	—	—	—
Off-Site Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Off-Site Paving	Vendor	0.00	10.2	HHDT,MHDT
Off-Site Paving	Hauling	0.00	20.0	HHDT
Off-Site Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	397,065	132,355	14,113

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Off-Site Grading	—	—	3.00	0.00	—
Demolition	0.00	0.00	0.00	17,562	—
Clear Site	—	—	5.50	0.00	—

Grading - Building Pad (Rough)	—	—	198	0.00	—
Grading – Building Pad (Fine) + Site (Rough)	—	—	108	0.00	—
Paving	0.00	0.00	0.00	0.00	8.40

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.22	100%
Other Asphalt Surfaces	4.18	100%
Road Widening	3.00	100%
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	349	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year

Unrefrigerated Warehouse-No Rail	294	25.7	10.3	78,551	5,577	487	196	1,489,595
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	162	14.0	5.56	43,258	4,901	424	168	1,308,548

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	397,065	132,355	14,113

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)

Unrefrigerated Warehouse-No Rail	1,218,288	346	0.0330	0.0040	0.00
Parking Lot	46,553	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
User Defined Industrial	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	61,214,187	933,331
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	249	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	1.00	1.00	50.0	300	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.8	annual days of extreme heat
Extreme Precipitation	2.60	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.89	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	49.2
AQ-DPM	31.8
Drinking Water	10.2
Lead Risk Housing	16.1
Pesticides	27.2
Toxic Releases	23.1
Traffic	72.3
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	22.1
Haz Waste Facilities/Generators	23.7
Impaired Water Bodies	0.00
Solid Waste	52.9
Sensitive Population	—
Asthma	42.3
Cardio-vascular	74.9

Low Birth Weights	9.85
Socioeconomic Factor Indicators	—
Education	58.9
Housing	12.8
Linguistic	7.38
Poverty	50.7
Unemployment	30.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	31.83626331
Employed	9.39304504
Median HI	19.47901963
Education	—
Bachelor's or higher	31.46413448
High school enrollment	100
Preschool enrollment	61.41408957
Transportation	—
Auto Access	91.71050943
Active commuting	43.93686642
Social	—
2-parent households	8.456306942
Voting	25.54856923
Neighborhood	—
Alcohol availability	85.78211215

Park access	2.194276915
Retail density	15.48825869
Supermarket access	15.07763377
Tree canopy	1.077890414
Housing	—
Homeownership	92.2751187
Housing habitability	54.38213782
Low-inc homeowner severe housing cost burden	5.658924676
Low-inc renter severe housing cost burden	73.36070833
Uncrowded housing	54.63877839
Health Outcomes	—
Insured adults	13.51212627
Arthritis	4.6
Asthma ER Admissions	63.2
High Blood Pressure	6.0
Cancer (excluding skin)	16.1
Asthma	21.6
Coronary Heart Disease	3.6
Chronic Obstructive Pulmonary Disease	5.0
Diagnosed Diabetes	23.2
Life Expectancy at Birth	14.6
Cognitively Disabled	97.6
Physically Disabled	26.6
Heart Attack ER Admissions	35.8
Mental Health Not Good	30.2
Chronic Kidney Disease	7.4
Obesity	24.6

Pedestrian Injuries	72.5
Physical Health Not Good	21.6
Stroke	8.8
Health Risk Behaviors	—
Binge Drinking	69.8
Current Smoker	21.9
No Leisure Time for Physical Activity	24.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	19.9
Elderly	29.3
English Speaking	74.5
Foreign-born	34.9
Outdoor Workers	34.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	81.9
Traffic Density	49.5
Traffic Access	23.0
Other Indices	—
Hardship	81.8
Other Decision Support	—
2016 Voting	40.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	27.0

Healthy Places Index Score for Project Location (b)	20.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Client provided construction dates and off-site construction dates
Land Use	Acreage taken from Site Plan Off-SIte construction acreage and miles of construction conservatively assumed
Construction: Off-Road Equipment	Client provided construction equipment and standard 8-hour work day
Construction: Trips and VMT	"CalEEMod only assumes Vendor Trips during Building Construction. The CalEEMod default trips are based on the ratio between each phase based on the number of days." Demolition quantities will be hauled off-site to a site approximately 40-miles away
Construction: Architectural Coatings	SCAQMD Rule 1113
Operations: Vehicle Data	Trip Characteristics based on information provided in the Traffic Analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle trucks
Operations: Architectural Coatings	SCAQMD Rule 1113

Operations: Energy Use	Natural Gas will not be utilized

Emissions	Phase	Lb/Day	# Days	Emissions	Avg/Lb Day	Avg/Hourly
On-Site	Offsite Grading	0.07	31	2.218860905	0.071576158	0.00894702
Exhaust PM-10	Offsite Paving	0.09	31	2.667028899	0.08603319	0.010754149
	Demolition	0.20	11	2.212239959	0.201112724	0.02513909
	Clear Site	0.03	11	0.284801962	0.025891087	0.003236386
	Grading – Building Pad (Rough)	0.20	36	7.37790171	0.204941714	0.025617714
	Grading – Building Pad (Fine) + Site (Rough)	0.11	36	3.895684487	0.108213458	0.013526682
	Building Construction	0.15	91	13.89306041	0.152670994	0.019083874
	Paving	0.09	26	2.236862948	0.08603319	0.010754149
	Architectural Coating	0.08	27	2.198894048	0.08144052	0.010180065
		1.02	238	36.98533533	0.155400569	0.019425071
Off-Site	Offsite Grading	4.50E-04	31	0.013942033	0.000449743	5.62179E-05
Exhaust PM-10	Offsite Paving	0.00E+00	31	0	0	0
	Demolition	4.95E-02	11	0.544294869	0.049481352	0.006185169
	Clear Site	8.99E-04	11	0.009894346	0.000899486	0.000112436
	Grading – Building Pad (Rough)	3.15E-03	36	0.11333524	0.003148201	0.000393525
	Grading – Building Pad (Fine) + Site (Rough)	3.15E-03	36	0.11333524	0.003148201	0.000393525
	Building Construction	7.20E-03	91	0.654825829	0.007195888	0.000899486
	Paving	2.25E-03	26	0.058466592	0.002248715	0.000281089
	Architectural Coating	2.25E-03	27	0.060715307	0.002248715	0.000281089
		6.88E-02	238	1.568809456	0.006591636	0.000823955

Phase	Start Date	End Date	No. Days
Offsite Grading	4/24/2025	6/5/2025	31
Offsite Paving	6/6/2025	7/18/2025	31
Demolition	2/3/2025	2/17/2025	11
Clear Site	2/18/2025	3/4/2025	11
Grading – Building Pad (Rough)	3/5/2025	4/23/2025	36
Grading – Building Pad (Fine) + Site (Rough)	4/24/2025	6/12/2025	36
Building Construction	6/13/2025	10/17/2025	91
Paving	10/20/2025	11/24/2025	26
Architectural Coating	11/25/2025	12/31/2025	27
		Total Days of Construction	**238**

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APPENDIX 2.2:

EMFAC EMISSIONS SUMMARY

AVERAGE EMISSION FACTOR
RIVERSIDE COUNTY 2026

Speed	LHD1	LHD2	MHD	HHD
0	0.363435	0.583122	0.042564	0.01187
5	0.043322	0.063565	0.025956	0.01166
25	0.020162	0.030795	0.00693	0.00583

Speed	**Weighted Average Emissions**
0	**0.08750**
5	**0.02091**
25	**0.00895**

Truck Emission Rates

Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - North Loading Docks	81			0.0875	1.77	2.051E-05
On-Site Idling - Trailer Parking	81			0.0875	0.59	6.836E-06
On-Site Travel	162	26.49	0.0209		0.55	6.412E-06
Off-Site Travel - Sherman Rd. (N) / Ethanac Rd. (W) 100%	162	124.17	0.0089		1.11	1.286E-05
Off-Site Travel - I-215 N Bound 60%	97	17.31	0.0089		0.15	1.793E-06
Off-Site Travel - I-215 S Bound 40%	65	19.09	0.0089		0.17	1.977E-06

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2021. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes at loading docks and 5 minutes at trailer parking areas.

calendar_y	season_m	sub_area	vehicle_class	fuel	temperatu	relative_hu	process	speed_tim	pollutant	emission_rate
2026	Annual	Riverside (	HHDT	Dsl	60	70	RUNEX	5	PM10	0.012278
2026	Annual	Riverside (	HHDT	Dsl	60	70	RUNEX	25	PM10	0.006143
2026	Annual	Riverside (	HHDT	Dsl			IDLEX		PM10	0.012496
2026	Annual	Riverside (	LHDT1	Dsl	60	70	RUNEX	5	PM10	0.094016
2026	Annual	Riverside (	LHDT1	Dsl	60	70	RUNEX	25	PM10	0.043754
2026	Annual	Riverside (	LHDT1	Dsl			IDLEX		PM10	0.788713
2026	Annual	Riverside (	LHDT2	Dsl	60	70	RUNEX	5	PM10	0.086355
2026	Annual	Riverside (	LHDT2	Dsl	60	70	RUNEX	25	PM10	0.041836
2026	Annual	Riverside (	LHDT2	Dsl			IDLEX		PM10	0.79219
2026	Annual	Riverside (	MHDT	Dsl	60	70	RUNEX	5	PM10	0.028258
2026	Annual	Riverside (	MHDT	Dsl	60	70	RUNEX	25	PM10	0.007545
2026	Annual	Riverside (	MHDT	Dsl			IDLEX		PM10	0.046341

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2026
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar `	Vehicle Ca	Model Yea	Speed	Fuel	Population
Riverside	2026	HHDT	Aggregate	Aggregate	Gasoline	5.30171
Riverside	2026	HHDT	Aggregate	Aggregate	Diesel	15687.8
Riverside	2026	HHDT	Aggregate	Aggregate	Natural Ga	822.986
Riverside	2026	LHDT1	Aggregate	Aggregate	Gasoline	17398.3
Riverside	2026	LHDT1	Aggregate	Aggregate	Diesel	14868.3
Riverside	2026	LHDT2	Aggregate	Aggregate	Gasoline	2430.03
Riverside	2026	LHDT2	Aggregate	Aggregate	Diesel	6777.72
Riverside	2026	MHDT	Aggregate	Aggregate	Gasoline	1204.16
Riverside	2026	MHDT	Aggregate	Aggregate	Diesel	13571.6
Riverside	2026	MHDT	Aggregate	Aggregate	Natural Ga	180.813

HHDT% GAS/NG	0.05015
HHDT% DSL	0.94985
LHDT1% GAS	0.5392
LHDT1% DSL	0.4608
LHDT2% GAS	0.26391
LHDT2% DSL	0.73609
MHDT% GAS	0.0815
MHDT% DSL	0.9185

Emergency Generators

0.14	PM10 Emissions (lb/day)
0.036211	PM10 Emissions (lb/hr)
1	No. of Point Sources (Generators)
0.036211	PM10 Emissions per Volume Source (lb/hr)

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APPENDIX 2.3:

AERMOD MODEL INPUT/OUTPUT

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/3/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business
Park\Construction\Construction.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 2189641 County_of_Riverside
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL Construction.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.0001038166
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 21
** 483284.673, 3733145.347, 436.00, 3.49, 4.00
** 483280.368, 3733399.871, 436.00, 3.49, 4.00
** 483280.368, 3733467.134, 436.00, 3.49, 4.00
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** 483283.066, 3733624.906, 436.00, 3.49, 4.00
** 483282.223, 3733661.986, 436.00, 3.49, 4.00
** 483281.661, 3733671.256, 436.00, 3.49, 4.00
** 483122.779, 3733671.059, 435.04, 3.49, 4.00
** 483060.165, 3733671.377, 435.00, 3.49, 4.00
** 482965.344, 3733671.801, 435.00, 3.49, 4.00
** 482946.698, 3733672.013, 435.00, 3.49, 4.00
** 482888.004, 3733672.860, 435.00, 3.49, 4.00
** 482862.895, 3733671.801, 435.00, 3.49, 4.00
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** 482714.114, 3733670.983, 434.00, 3.49, 4.00
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** 482622.332, 3733672.177, 434.00, 3.49, 4.00
** 482339.708, 3733672.598, 433.73, 3.49, 4.00
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   LOCATION L0000003     VOLUME   483284.310 3733166.819 436.00
   LOCATION L0000004     VOLUME   483284.165 3733175.408 436.00
   LOCATION L0000005     VOLUME   483284.019 3733183.997 436.00
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   LOCATION L0000017     VOLUME   483282.276 3733287.062 436.00
   LOCATION L0000018     VOLUME   483282.131 3733295.651 436.00
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LOCATION L0000063     VOLUME   483270.835 3733671.242 436.00
LOCATION L0000064     VOLUME   483262.245 3733671.232 436.00
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LOCATION L0000069     VOLUME   483219.295 3733671.179 436.00
LOCATION L0000070     VOLUME   483210.705 3733671.168 436.00
LOCATION L0000071     VOLUME   483202.115 3733671.157 436.00
LOCATION L0000072     VOLUME   483193.525 3733671.147 436.00
LOCATION L0000073     VOLUME   483184.935 3733671.136 436.00
LOCATION L0000074     VOLUME   483176.345 3733671.125 436.00
LOCATION L0000075     VOLUME   483167.755 3733671.115 436.00
LOCATION L0000076     VOLUME   483159.165 3733671.104 435.97
LOCATION L0000077     VOLUME   483150.575 3733671.094 435.68
LOCATION L0000078     VOLUME   483141.985 3733671.083 435.40
LOCATION L0000079     VOLUME   483133.395 3733671.072 435.11
LOCATION L0000080     VOLUME   483124.805 3733671.062 435.00
LOCATION L0000081     VOLUME   483116.215 3733671.092 435.00
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LOCATION L0000082 VOLUME 483107.626 3733671.136 435.00
LOCATION L0000083 VOLUME 483099.036 3733671.180 435.00
LOCATION L0000084 VOLUME 483090.446 3733671.223 435.00
LOCATION L0000085 VOLUME 483081.856 3733671.267 435.00
LOCATION L0000086 VOLUME 483073.266 3733671.311 435.00
LOCATION L0000087 VOLUME 483064.676 3733671.354 435.00
LOCATION L0000088 VOLUME 483056.086 3733671.395 435.00
LOCATION L0000089 VOLUME 483047.496 3733671.434 435.00
LOCATION L0000090 VOLUME 483038.906 3733671.472 435.00
LOCATION L0000091 VOLUME 483030.316 3733671.510 435.00
LOCATION L0000092 VOLUME 483021.727 3733671.549 435.00
LOCATION L0000093 VOLUME 483013.137 3733671.587 435.00
LOCATION L0000094 VOLUME 483004.547 3733671.626 435.00
LOCATION L0000095 VOLUME 482995.957 3733671.664 435.00
LOCATION L0000096 VOLUME 482987.367 3733671.702 435.00
LOCATION L0000097 VOLUME 482978.777 3733671.741 435.00
LOCATION L0000098 VOLUME 482970.187 3733671.779 435.00
LOCATION L0000099 VOLUME 482961.597 3733671.843 435.00
LOCATION L0000100 VOLUME 482953.008 3733671.941 435.00
LOCATION L0000101 VOLUME 482944.419 3733672.046 435.00
LOCATION L0000102 VOLUME 482935.829 3733672.170 435.00
LOCATION L0000103 VOLUME 482927.240 3733672.294 435.00
LOCATION L0000104 VOLUME 482918.651 3733672.418 435.00
LOCATION L0000105 VOLUME 482910.062 3733672.542 435.00
LOCATION L0000106 VOLUME 482901.473 3733672.666 435.00
LOCATION L0000107 VOLUME 482892.884 3733672.790 435.00
LOCATION L0000108 VOLUME 482884.298 3733672.704 435.00
LOCATION L0000109 VOLUME 482875.715 3733672.342 435.00
LOCATION L0000110 VOLUME 482867.133 3733671.980 435.00
LOCATION L0000111 VOLUME 482858.553 3733671.562 435.00
LOCATION L0000112 VOLUME 482849.976 3733671.091 435.00
LOCATION L0000113 VOLUME 482841.399 3733670.620 435.00
LOCATION L0000114 VOLUME 482832.822 3733670.149 435.00
LOCATION L0000115 VOLUME 482824.245 3733669.678 435.00
LOCATION L0000116 VOLUME 482815.664 3733669.348 435.00
LOCATION L0000117 VOLUME 482807.074 3733669.313 435.00
LOCATION L0000118 VOLUME 482798.484 3733669.278 434.95
LOCATION L0000119 VOLUME 482789.894 3733669.243 434.70
LOCATION L0000120 VOLUME 482781.304 3733669.208 434.44
LOCATION L0000121 VOLUME 482772.714 3733669.173 434.19
LOCATION L0000122 VOLUME 482764.127 3733669.310 434.09
LOCATION L0000123 VOLUME 482755.542 3733669.597 434.06
LOCATION L0000124 VOLUME 482746.956 3733669.884 434.03
LOCATION L0000125 VOLUME 482738.371 3733670.171 434.00
LOCATION L0000126 VOLUME 482729.786 3733670.459 434.00
LOCATION L0000127 VOLUME 482721.201 3733670.746 434.00
LOCATION L0000128 VOLUME 482712.615 3733671.018 434.00
LOCATION L0000129 VOLUME 482704.027 3733671.219 434.00
LOCATION L0000130 VOLUME 482695.440 3733671.420 434.00
LOCATION L0000131 VOLUME 482686.852 3733671.621 434.00

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   LOCATION L0000132     VOLUME   482678.264 3733671.802 434.00
   LOCATION L0000133     VOLUME   482669.674 3733671.860 434.00
   LOCATION L0000134     VOLUME   482661.085 3733671.918 434.00
   LOCATION L0000135     VOLUME   482652.495 3733671.975 434.00
   LOCATION L0000136     VOLUME   482643.905 3733672.033 434.00
   LOCATION L0000137     VOLUME   482635.315 3733672.090 434.00
   LOCATION L0000138     VOLUME   482626.725 3733672.148 434.00
   LOCATION L0000139     VOLUME   482618.135 3733672.184 434.00
   LOCATION L0000140     VOLUME   482609.545 3733672.196 434.00
   LOCATION L0000141     VOLUME   482600.956 3733672.209 434.00
   LOCATION L0000142     VOLUME   482592.366 3733672.222 434.00
   LOCATION L0000143     VOLUME   482583.776 3733672.235 434.00
   LOCATION L0000144     VOLUME   482575.186 3733672.248 434.00
   LOCATION L0000145     VOLUME   482566.596 3733672.260 434.00
   LOCATION L0000146     VOLUME   482558.006 3733672.273 434.00
   LOCATION L0000147     VOLUME   482549.416 3733672.286 434.00
   LOCATION L0000148     VOLUME   482540.826 3733672.299 434.00
   LOCATION L0000149     VOLUME   482532.236 3733672.311 434.00
   LOCATION L0000150     VOLUME   482523.646 3733672.324 434.00
   LOCATION L0000151     VOLUME   482515.056 3733672.337 434.00
   LOCATION L0000152     VOLUME   482506.466 3733672.350 434.00
   LOCATION L0000153     VOLUME   482497.876 3733672.362 434.00
   LOCATION L0000154     VOLUME   482489.286 3733672.375 434.00
   LOCATION L0000155     VOLUME   482480.696 3733672.388 434.00
   LOCATION L0000156     VOLUME   482472.106 3733672.401 434.00
   LOCATION L0000157     VOLUME   482463.516 3733672.414 434.00
   LOCATION L0000158     VOLUME   482454.926 3733672.426 434.00
   LOCATION L0000159     VOLUME   482446.336 3733672.439 434.00
   LOCATION L0000160     VOLUME   482437.746 3733672.452 434.00
   LOCATION L0000161     VOLUME   482429.156 3733672.465 434.00
   LOCATION L0000162     VOLUME   482420.566 3733672.477 434.00
   LOCATION L0000163     VOLUME   482411.976 3733672.490 434.00
   LOCATION L0000164     VOLUME   482403.386 3733672.503 434.00
   LOCATION L0000165     VOLUME   482394.796 3733672.516 434.00
   LOCATION L0000166     VOLUME   482386.206 3733672.529 434.00
   LOCATION L0000167     VOLUME   482377.616 3733672.541 433.98
   LOCATION L0000168     VOLUME   482369.026 3733672.554 433.92
   LOCATION L0000169     VOLUME   482360.436 3733672.567 433.86
   LOCATION L0000170     VOLUME   482351.846 3733672.580 433.79
   LOCATION L0000171     VOLUME   482343.256 3733672.592 433.60
** End of LINE VOLUME Source ID = SLINE4
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
** LINE VOLUME Source ID = SLINE4
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   SRCPARAM VOL1         0.0004079197     5.000    22.188     1.400
   SRCPARAM VOL2         0.0004079197     5.000    22.188     1.400
   SRCPARAM VOL3         0.0004079197     5.000    22.188     1.400
   SRCPARAM VOL4         0.0004079197     5.000    22.188     1.400
   SRCPARAM VOL5         0.0004079197     5.000    22.188     1.400
   SRCPARAM VOL6         0.0004079197     5.000    22.188     1.400
**
** No Building Downwash **
**
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
```

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   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
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   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT L0000001     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000001     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000001     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000002     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000002     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000003     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000003     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000004     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000004     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000005     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000005     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000006     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000006     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000007     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000007     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000008     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000008     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000008     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000009     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000009     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000010     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000010     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000010     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000011     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000011     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000012     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000012     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000013     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000013     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000014     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000014     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000015     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000015     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000016     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000017     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
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EMISFACT L0000019     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000019     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000020     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000021     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000021     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000021     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000021     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000022     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000022     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000022     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000023     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000023     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000023     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000023     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000024     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000025     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000025     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000026     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000026     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000026     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000026     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000027     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000027     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000028     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000028     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000029     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000029     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000029     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000029     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000030     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000030     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000031     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000031     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000031     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000032     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000032     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000032     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000032     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000033     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000033     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000033     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000033     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000034     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000034     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000034     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000035     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000035     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000044     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000049     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000057     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000119     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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   EMISFACT L0000165     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000165     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000165     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000166     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000166     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000166     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000167     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000167     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000167     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000167     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000168     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000168     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000168     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000168     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000169     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000169     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000169     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000169     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000170     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000170     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000170     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000170     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000171     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000171     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000171     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000171     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**********************************
** AERMOD Receptor Pathway
**********************************
**
**
RE STARTING
   INCLUDED Construction.rou
RE FINISHED
**
**********************************
** AERMOD Meteorology Pathway
**********************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
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   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
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** AERMOD Output Pathway
**************************************
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OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL CONSTRUCTION.AD\PE00GALL.PLT 31
   SUMMFILE Construction.sum
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    North American Datum 1983
** DTMRGN   CONUS
** UNITS    m
** ZONE     11
** ZONEINX  0
**
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/3/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business
Park\Construction\Construction.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
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CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 2189641 County_of_Riverside
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   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL Construction.err
CO FINISHED
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** AERMOD Source Pathway
************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.0001038166
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 21
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** 483280.542, 3733580.184, 436.00, 3.49, 4.00
** 483282.223, 3733604.400, 436.00, 3.49, 4.00
** 483283.066, 3733624.906, 436.00, 3.49, 4.00
** 483282.223, 3733661.986, 436.00, 3.49, 4.00
** 483281.661, 3733671.256, 436.00, 3.49, 4.00
** 483122.779, 3733671.059, 435.04, 3.49, 4.00
** 483060.165, 3733671.377, 435.00, 3.49, 4.00
** 482965.344, 3733671.801, 435.00, 3.49, 4.00
** 482946.698, 3733672.013, 435.00, 3.49, 4.00
** 482888.004, 3733672.860, 435.00, 3.49, 4.00
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** 482818.435, 3733669.359, 434.96, 3.49, 4.00
** 482768.710, 3733669.156, 434.02, 3.49, 4.00
** 482714.114, 3733670.983, 434.00, 3.49, 4.00
** 482679.408, 3733671.795, 434.00, 3.49, 4.00
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** 482339.708, 3733672.598, 433.73, 3.49, 4.00
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   LOCATION L0000002     VOLUME   483284.455 3733158.230 436.00
   LOCATION L0000003     VOLUME   483284.310 3733166.819 436.00
   LOCATION L0000004     VOLUME   483284.165 3733175.408 436.00
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LOCATION L0000006     VOLUME   483283.874 3733192.585 436.00
LOCATION L0000007     VOLUME   483283.729 3733201.174 436.00
LOCATION L0000008     VOLUME   483283.584 3733209.763 436.00
LOCATION L0000009     VOLUME   483283.438 3733218.352 436.00
LOCATION L0000010     VOLUME   483283.293 3733226.940 436.00
LOCATION L0000011     VOLUME   483283.148 3733235.529 436.00
LOCATION L0000012     VOLUME   483283.002 3733244.118 436.00
LOCATION L0000013     VOLUME   483282.857 3733252.707 436.00
LOCATION L0000014     VOLUME   483282.712 3733261.296 436.00
LOCATION L0000015     VOLUME   483282.567 3733269.884 436.00
LOCATION L0000016     VOLUME   483282.421 3733278.473 436.00
LOCATION L0000017     VOLUME   483282.276 3733287.062 436.00
LOCATION L0000018     VOLUME   483282.131 3733295.651 436.00
LOCATION L0000019     VOLUME   483281.986 3733304.239 436.00
LOCATION L0000020     VOLUME   483281.840 3733312.828 436.00
LOCATION L0000021     VOLUME   483281.695 3733321.417 436.00
LOCATION L0000022     VOLUME   483281.550 3733330.006 436.00
LOCATION L0000023     VOLUME   483281.405 3733338.594 436.00
LOCATION L0000024     VOLUME   483281.259 3733347.183 436.00
LOCATION L0000025     VOLUME   483281.114 3733355.772 436.00
LOCATION L0000026     VOLUME   483280.969 3733364.361 436.00
LOCATION L0000027     VOLUME   483280.824 3733372.950 436.00
LOCATION L0000028     VOLUME   483280.678 3733381.538 436.00
LOCATION L0000029     VOLUME   483280.533 3733390.127 436.00
LOCATION L0000030     VOLUME   483280.388 3733398.716 436.00
LOCATION L0000031     VOLUME   483280.368 3733407.306 436.00
LOCATION L0000032     VOLUME   483280.368 3733415.896 436.00
LOCATION L0000033     VOLUME   483280.368 3733424.486 436.00
LOCATION L0000034     VOLUME   483280.368 3733433.076 436.00
LOCATION L0000035     VOLUME   483280.368 3733441.666 436.00
LOCATION L0000036     VOLUME   483280.368 3733450.256 436.00
LOCATION L0000037     VOLUME   483280.368 3733458.846 436.00
LOCATION L0000038     VOLUME   483280.368 3733467.436 436.00
LOCATION L0000039     VOLUME   483280.352 3733476.026 436.00
LOCATION L0000040     VOLUME   483280.336 3733484.616 436.00
LOCATION L0000041     VOLUME   483280.319 3733493.206 436.00
LOCATION L0000042     VOLUME   483280.303 3733501.796 436.00
LOCATION L0000043     VOLUME   483280.287 3733510.386 436.00
LOCATION L0000044     VOLUME   483280.271 3733518.976 436.00
LOCATION L0000045     VOLUME   483280.255 3733527.566 436.00
LOCATION L0000046     VOLUME   483280.239 3733536.156 436.00
LOCATION L0000047     VOLUME   483280.230 3733544.746 436.00
LOCATION L0000048     VOLUME   483280.306 3733553.335 436.00
LOCATION L0000049     VOLUME   483280.382 3733561.925 436.00
LOCATION L0000050     VOLUME   483280.457 3733570.515 436.00
LOCATION L0000051     VOLUME   483280.533 3733579.104 436.00
LOCATION L0000052     VOLUME   483281.062 3733587.676 436.00
LOCATION L0000053     VOLUME   483281.657 3733596.246 436.00
LOCATION L0000054     VOLUME   483282.240 3733604.816 436.00
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LOCATION L0000056 VOLUME 483282.946 3733621.981 436.00
LOCATION L0000057 VOLUME 483282.937 3733630.567 436.00
LOCATION L0000058 VOLUME 483282.742 3733639.155 436.00
LOCATION L0000059 VOLUME 483282.547 3733647.743 436.00
LOCATION L0000060 VOLUME 483282.352 3733656.330 436.00
LOCATION L0000061 VOLUME 483282.046 3733664.914 436.00
LOCATION L0000062 VOLUME 483279.425 3733671.253 436.00
LOCATION L0000063 VOLUME 483270.835 3733671.242 436.00
LOCATION L0000064 VOLUME 483262.245 3733671.232 436.00
LOCATION L0000065 VOLUME 483253.655 3733671.221 436.00
LOCATION L0000066 VOLUME 483245.065 3733671.210 436.00
LOCATION L0000067 VOLUME 483236.475 3733671.200 436.00
LOCATION L0000068 VOLUME 483227.885 3733671.189 436.00
LOCATION L0000069 VOLUME 483219.295 3733671.179 436.00
LOCATION L0000070 VOLUME 483210.705 3733671.168 436.00
LOCATION L0000071 VOLUME 483202.115 3733671.157 436.00
LOCATION L0000072 VOLUME 483193.525 3733671.147 436.00
LOCATION L0000073 VOLUME 483184.935 3733671.136 436.00
LOCATION L0000074 VOLUME 483176.345 3733671.125 436.00
LOCATION L0000075 VOLUME 483167.755 3733671.115 436.00
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LOCATION L0000079 VOLUME 483133.395 3733671.072 435.11
LOCATION L0000080 VOLUME 483124.805 3733671.062 435.00
LOCATION L0000081 VOLUME 483116.215 3733671.092 435.00
LOCATION L0000082 VOLUME 483107.626 3733671.136 435.00
LOCATION L0000083 VOLUME 483099.036 3733671.180 435.00
LOCATION L0000084 VOLUME 483090.446 3733671.223 435.00
LOCATION L0000085 VOLUME 483081.856 3733671.267 435.00
LOCATION L0000086 VOLUME 483073.266 3733671.311 435.00
LOCATION L0000087 VOLUME 483064.676 3733671.354 435.00
LOCATION L0000088 VOLUME 483056.086 3733671.395 435.00
LOCATION L0000089 VOLUME 483047.496 3733671.434 435.00
LOCATION L0000090 VOLUME 483038.906 3733671.472 435.00
LOCATION L0000091 VOLUME 483030.316 3733671.510 435.00
LOCATION L0000092 VOLUME 483021.727 3733671.549 435.00
LOCATION L0000093 VOLUME 483013.137 3733671.587 435.00
LOCATION L0000094 VOLUME 483004.547 3733671.626 435.00
LOCATION L0000095 VOLUME 482995.957 3733671.664 435.00
LOCATION L0000096 VOLUME 482987.367 3733671.702 435.00
LOCATION L0000097 VOLUME 482978.777 3733671.741 435.00
LOCATION L0000098 VOLUME 482970.187 3733671.779 435.00
LOCATION L0000099 VOLUME 482961.597 3733671.843 435.00
LOCATION L0000100 VOLUME 482953.008 3733671.941 435.00
LOCATION L0000101 VOLUME 482944.419 3733672.046 435.00
LOCATION L0000102 VOLUME 482935.829 3733672.170 435.00
LOCATION L0000103 VOLUME 482927.240 3733672.294 435.00
LOCATION L0000104 VOLUME 482918.651 3733672.418 435.00

LOCATION L0000105 VOLUME 482910.062 3733672.542 435.00
LOCATION L0000106 VOLUME 482901.473 3733672.666 435.00
LOCATION L0000107 VOLUME 482892.884 3733672.790 435.00
LOCATION L0000108 VOLUME 482884.298 3733672.704 435.00
LOCATION L0000109 VOLUME 482875.715 3733672.342 435.00
LOCATION L0000110 VOLUME 482867.133 3733671.980 435.00
LOCATION L0000111 VOLUME 482858.553 3733671.562 435.00
LOCATION L0000112 VOLUME 482849.976 3733671.091 435.00
LOCATION L0000113 VOLUME 482841.399 3733670.620 435.00
LOCATION L0000114 VOLUME 482832.822 3733670.149 435.00
LOCATION L0000115 VOLUME 482824.245 3733669.678 435.00
LOCATION L0000116 VOLUME 482815.664 3733669.348 435.00
LOCATION L0000117 VOLUME 482807.074 3733669.313 435.00
LOCATION L0000118 VOLUME 482798.484 3733669.278 434.95
LOCATION L0000119 VOLUME 482789.894 3733669.243 434.70
LOCATION L0000120 VOLUME 482781.304 3733669.208 434.44
LOCATION L0000121 VOLUME 482772.714 3733669.173 434.19
LOCATION L0000122 VOLUME 482764.127 3733669.310 434.09
LOCATION L0000123 VOLUME 482755.542 3733669.597 434.06
LOCATION L0000124 VOLUME 482746.956 3733669.884 434.03
LOCATION L0000125 VOLUME 482738.371 3733670.171 434.00
LOCATION L0000126 VOLUME 482729.786 3733670.459 434.00
LOCATION L0000127 VOLUME 482721.201 3733670.746 434.00
LOCATION L0000128 VOLUME 482712.615 3733671.018 434.00
LOCATION L0000129 VOLUME 482704.027 3733671.219 434.00
LOCATION L0000130 VOLUME 482695.440 3733671.420 434.00
LOCATION L0000131 VOLUME 482686.852 3733671.621 434.00
LOCATION L0000132 VOLUME 482678.264 3733671.802 434.00
LOCATION L0000133 VOLUME 482669.674 3733671.860 434.00
LOCATION L0000134 VOLUME 482661.085 3733671.918 434.00
LOCATION L0000135 VOLUME 482652.495 3733671.975 434.00
LOCATION L0000136 VOLUME 482643.905 3733672.033 434.00
LOCATION L0000137 VOLUME 482635.315 3733672.090 434.00
LOCATION L0000138 VOLUME 482626.725 3733672.148 434.00
LOCATION L0000139 VOLUME 482618.135 3733672.184 434.00
LOCATION L0000140 VOLUME 482609.545 3733672.196 434.00
LOCATION L0000141 VOLUME 482600.956 3733672.209 434.00
LOCATION L0000142 VOLUME 482592.366 3733672.222 434.00
LOCATION L0000143 VOLUME 482583.776 3733672.235 434.00
LOCATION L0000144 VOLUME 482575.186 3733672.248 434.00
LOCATION L0000145 VOLUME 482566.596 3733672.260 434.00
LOCATION L0000146 VOLUME 482558.006 3733672.273 434.00
LOCATION L0000147 VOLUME 482549.416 3733672.286 434.00
LOCATION L0000148 VOLUME 482540.826 3733672.299 434.00
LOCATION L0000149 VOLUME 482532.236 3733672.311 434.00
LOCATION L0000150 VOLUME 482523.646 3733672.324 434.00
LOCATION L0000151 VOLUME 482515.056 3733672.337 434.00
LOCATION L0000152 VOLUME 482506.466 3733672.350 434.00
LOCATION L0000153 VOLUME 482497.876 3733672.362 434.00
LOCATION L0000154 VOLUME 482489.286 3733672.375 434.00

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   LOCATION L0000156     VOLUME   482472.106 3733672.401 434.00
   LOCATION L0000157     VOLUME   482463.516 3733672.414 434.00
   LOCATION L0000158     VOLUME   482454.926 3733672.426 434.00
   LOCATION L0000159     VOLUME   482446.336 3733672.439 434.00
   LOCATION L0000160     VOLUME   482437.746 3733672.452 434.00
   LOCATION L0000161     VOLUME   482429.156 3733672.465 434.00
   LOCATION L0000162     VOLUME   482420.566 3733672.477 434.00
   LOCATION L0000163     VOLUME   482411.976 3733672.490 434.00
   LOCATION L0000164     VOLUME   482403.386 3733672.503 434.00
   LOCATION L0000165     VOLUME   482394.796 3733672.516 434.00
   LOCATION L0000166     VOLUME   482386.206 3733672.529 434.00
   LOCATION L0000167     VOLUME   482377.616 3733672.541 433.98
   LOCATION L0000168     VOLUME   482369.026 3733672.554 433.92
   LOCATION L0000169     VOLUME   482360.436 3733672.567 433.86
   LOCATION L0000170     VOLUME   482351.846 3733672.580 433.79
   LOCATION L0000171     VOLUME   482343.256 3733672.592 433.60
** End of LINE VOLUME Source ID = SLINE4
   LOCATION VOL1         VOLUME     483130.536  3733373.066      435.000
   LOCATION VOL2         VOLUME     483225.593  3733373.417      436.000
   LOCATION VOL3         VOLUME     483130.539  3733277.650      435.000
   LOCATION VOL4         VOLUME     483225.949  3733278.362      436.000
   LOCATION VOL5         VOLUME     483131.607  3733211.789      435.000
   LOCATION VOL6         VOLUME     483227.729  3733214.281      436.000
** Source Parameters **
** LINE VOLUME Source ID = SLINE4
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   SRCPARAM L0000003     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000004     0.0000006071      3.49      4.00      3.25
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   SRCPARAM L0000006     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000007     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000008     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000009     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000010     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000011     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000012     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000013     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000014     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000015     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000016     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000017     0.0000006071      3.49      4.00      3.25
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   SRCPARAM L0000022     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000023     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000024     0.0000006071      3.49      4.00      3.25
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SRCPARAM L0000027     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000028     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000029     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000030     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000031     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000032     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000033     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000034     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000035     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000036     0.0000006071      3.49      4.00      3.25
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SRCPARAM L0000043     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000044     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000045     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000046     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000047     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000048     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000049     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000050     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000051     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000052     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000053     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000054     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000055     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000056     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000057     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000058     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000059     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000060     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000061     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000062     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000063     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000064     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000065     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000066     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000067     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000068     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000069     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000070     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000071     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000072     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000073     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000074     0.0000006071      3.49      4.00      3.25
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SRCPARAM L0000075     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000076     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000077     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000078     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000079     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000080     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000081     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000082     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000083     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000084     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000085     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000086     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000087     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000088     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000089     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000090     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000091     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000092     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000093     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000094     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000095     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000096     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000097     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000098     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000099     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000100     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000101     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000102     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000103     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000104     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000105     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000106     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000107     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000108     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000109     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000110     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000111     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000112     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000113     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000114     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000115     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000116     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000117     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000118     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000119     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000120     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000121     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000122     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000123     0.0000006071      3.49      4.00      3.25
SRCPARAM L0000124     0.0000006071      3.49      4.00      3.25
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   SRCPARAM L0000125     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000126     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000127     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000128     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000129     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000130     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000131     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000132     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000133     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000134     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000135     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000136     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000137     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000138     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000139     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000140     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000141     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000142     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000143     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000144     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000145     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000146     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000147     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000148     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000149     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000150     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000151     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000152     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000153     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000154     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000155     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000156     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000157     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000158     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000159     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000160     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000161     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000162     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000163     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000164     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000165     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000166     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000167     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000168     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000169     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000170     0.0000006071      3.49      4.00      3.25
   SRCPARAM L0000171     0.0000006071      3.49      4.00      3.25
** ---------------------------------------------------------------
   SRCPARAM VOL1         0.0004079197     5.000    22.188     1.400
   SRCPARAM VOL2         0.0004079197     5.000    22.188     1.400
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   SRCPARAM VOL3         0.0004079197     5.000    22.188     1.400
   SRCPARAM VOL4         0.0004079197     5.000    22.188     1.400
   SRCPARAM VOL5         0.0004079197     5.000    22.188     1.400
   SRCPARAM VOL6         0.0004079197     5.000    22.188     1.400
**
** No Building Downwash **
**
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 2"
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

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   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT L0000001     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000001     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000001     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000002     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000002     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000003     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000003     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000004     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000004     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000005     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000005     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000006     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000006     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000007     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000007     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000008     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000008     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000008     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000008     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000009     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000009     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000009     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000009     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000010     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000010     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000010     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000010     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000011     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000011     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000011     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000011     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000012     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000012     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000012     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000012     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000013     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000013     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000013     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000014     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000014     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000015     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000015     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000016     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000016     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000017     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000017     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000018     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000018     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000021     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000022     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000022     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000023     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000024     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000024     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000024     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000025     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000025     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
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EMISFACT L0000026     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000087     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000149     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000150     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000150     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
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   EMISFACT L0000170     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000171     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000171     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000171     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000171     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED Construction.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL CONSTRUCTION.AD\PE00GALL.PLT 31
   SUMMFILE Construction.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
```

```
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186    2603       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187    2603       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 *********************************
 *** SETUP Finishes Successfully ***
 *********************************

 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                        ***       09:40:52

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                          ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses URBAN Dispersion Algorithm for the SBL for   177 Source(s),
        for Total of    1 Urban Area(s):
   Urban Population =   2189641.0 ;  Urban Roughness Length =  1.000 m
      * Urban Roughness Length of 1.0 Meter Used.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
```

```
      * Model Assumes No FLAGPOLE Receptor Heights.
      * The User Specified a Pollutant Type of: DPM

 **Model Calculates PERIOD Averages Only

 **This Run Includes:    177 Source(s);       1 Source Group(s); and      46
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    177 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.7 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   Construction.err
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER EMISSION RATE PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ	URBAN SOURCE	EMISSION RATE SCALAR VARY BY	AIRCRAFT
L0000001	0	0.60710E-06	483284.6	3733149.6	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000002	0	0.60710E-06	483284.5	3733158.2	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000003	0	0.60710E-06	483284.3	3733166.8	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000004	0	0.60710E-06	483284.2	3733175.4	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000005	0	0.60710E-06	483284.0	3733184.0	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000006	0	0.60710E-06	483283.9	3733192.6	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000007	0	0.60710E-06	483283.7	3733201.2	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000008	0	0.60710E-06	483283.6	3733209.8	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000009	0	0.60710E-06	483283.4	3733218.4	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000010	0	0.60710E-06	483283.3	3733226.9	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000011	0	0.60710E-06	483283.1	3733235.5	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000012	0	0.60710E-06	483283.0	3733244.1	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000013	0	0.60710E-06	483282.9	3733252.7	436.0	3.49	4.00	3.25	YES	HRDOW	NO

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 L0000014         0   0.60710E-06  483282.7 3733261.3   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000015         0   0.60710E-06  483282.6 3733269.9   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000016         0   0.60710E-06  483282.4 3733278.5   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000017         0   0.60710E-06  483282.3 3733287.1   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000018         0   0.60710E-06  483282.1 3733295.7   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000019         0   0.60710E-06  483282.0 3733304.2   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000020         0   0.60710E-06  483281.8 3733312.8   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000021         0   0.60710E-06  483281.7 3733321.4   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000022         0   0.60710E-06  483281.5 3733330.0   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000023         0   0.60710E-06  483281.4 3733338.6   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000024         0   0.60710E-06  483281.3 3733347.2   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000025         0   0.60710E-06  483281.1 3733355.8   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000026         0   0.60710E-06  483281.0 3733364.4   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000027         0   0.60710E-06  483280.8 3733372.9   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000028         0   0.60710E-06  483280.7 3733381.5   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000029         0   0.60710E-06  483280.5 3733390.1   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000030         0   0.60710E-06  483280.4 3733398.7   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000031         0   0.60710E-06  483280.4 3733407.3   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000032         0   0.60710E-06  483280.4 3733415.9   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000033         0   0.60710E-06  483280.4 3733424.5   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000034         0   0.60710E-06  483280.4 3733433.1   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000035         0   0.60710E-06  483280.4 3733441.7   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000036         0   0.60710E-06  483280.4 3733450.3   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000037         0   0.60710E-06  483280.4 3733458.8   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000038         0   0.60710E-06  483280.4 3733467.4   436.0     3.49     4.00
3.25     YES   HRDOW            NO
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE BY	EMISSION RATE SCALAR VARY	AIRCRAFT
L0000041	0	0.60710E-06	483280.3	3733493.2	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000042	0	0.60710E-06	483280.3	3733501.8	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000043	0	0.60710E-06	483280.3	3733510.4	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000044	0	0.60710E-06	483280.3	3733519.0	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000045	0	0.60710E-06	483280.3	3733527.6	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000046	0	0.60710E-06	483280.2	3733536.2	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000047	0	0.60710E-06	483280.2	3733544.7	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000048	0	0.60710E-06	483280.3	3733553.3	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000049	0	0.60710E-06	483280.4	3733561.9	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000050	0	0.60710E-06	483280.5	3733570.5	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000051	0	0.60710E-06	483280.5	3733579.1	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000052	0	0.60710E-06	483281.1	3733587.7	436.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000053	0	0.60710E-06	483281.7	3733596.2	436.0	3.49	4.00				

```
3.25     YES   HRDOW            NO
 L0000054         0   0.60710E-06  483282.2 3733604.8   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000055         0   0.60710E-06  483282.6 3733613.4   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000056         0   0.60710E-06  483282.9 3733622.0   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000057         0   0.60710E-06  483282.9 3733630.6   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000058         0   0.60710E-06  483282.7 3733639.2   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000059         0   0.60710E-06  483282.5 3733647.7   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000060         0   0.60710E-06  483282.4 3733656.3   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000061         0   0.60710E-06  483282.0 3733664.9   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000062         0   0.60710E-06  483279.4 3733671.3   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000063         0   0.60710E-06  483270.8 3733671.2   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000064         0   0.60710E-06  483262.2 3733671.2   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000065         0   0.60710E-06  483253.7 3733671.2   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000066         0   0.60710E-06  483245.1 3733671.2   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000067         0   0.60710E-06  483236.5 3733671.2   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000068         0   0.60710E-06  483227.9 3733671.2   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000069         0   0.60710E-06  483219.3 3733671.2   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000070         0   0.60710E-06  483210.7 3733671.2   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000071         0   0.60710E-06  483202.1 3733671.2   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000072         0   0.60710E-06  483193.5 3733671.1   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000073         0   0.60710E-06  483184.9 3733671.1   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000074         0   0.60710E-06  483176.3 3733671.1   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000075         0   0.60710E-06  483167.8 3733671.1   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000076         0   0.60710E-06  483159.2 3733671.1   436.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000077         0   0.60710E-06  483150.6 3733671.1   435.7     3.49     4.00
3.25     YES   HRDOW            NO
 L0000078         0   0.60710E-06  483142.0 3733671.1   435.4     3.49     4.00
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE BY	EMISSION RATE SCALAR VARY	AIRCRAFT
L0000081	0	0.60710E-06	483116.2	3733671.1	435.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000082	0	0.60710E-06	483107.6	3733671.1	435.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000083	0	0.60710E-06	483099.0	3733671.2	435.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000084	0	0.60710E-06	483090.4	3733671.2	435.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000085	0	0.60710E-06	483081.9	3733671.3	435.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000086	0	0.60710E-06	483073.3	3733671.3	435.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000087	0	0.60710E-06	483064.7	3733671.4	435.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000088	0	0.60710E-06	483056.1	3733671.4	435.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000089	0	0.60710E-06	483047.5	3733671.4	435.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000090	0	0.60710E-06	483038.9	3733671.5	435.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000091	0	0.60710E-06	483030.3	3733671.5	435.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000092	0	0.60710E-06	483021.7	3733671.5	435.0	3.49	4.00	3.25	YES	HRDOW	NO

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 L0000093         0   0.60710E-06  483013.1 3733671.6   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000094         0   0.60710E-06  483004.5 3733671.6   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000095         0   0.60710E-06  482996.0 3733671.7   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000096         0   0.60710E-06  482987.4 3733671.7   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000097         0   0.60710E-06  482978.8 3733671.7   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000098         0   0.60710E-06  482970.2 3733671.8   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000099         0   0.60710E-06  482961.6 3733671.8   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000100         0   0.60710E-06  482953.0 3733671.9   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000101         0   0.60710E-06  482944.4 3733672.0   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000102         0   0.60710E-06  482935.8 3733672.2   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000103         0   0.60710E-06  482927.2 3733672.3   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000104         0   0.60710E-06  482918.7 3733672.4   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000105         0   0.60710E-06  482910.1 3733672.5   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000106         0   0.60710E-06  482901.5 3733672.7   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000107         0   0.60710E-06  482892.9 3733672.8   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000108         0   0.60710E-06  482884.3 3733672.7   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000109         0   0.60710E-06  482875.7 3733672.3   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000110         0   0.60710E-06  482867.1 3733672.0   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000111         0   0.60710E-06  482858.6 3733671.6   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000112         0   0.60710E-06  482850.0 3733671.1   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000113         0   0.60710E-06  482841.4 3733670.6   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000114         0   0.60710E-06  482832.8 3733670.1   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000115         0   0.60710E-06  482824.2 3733669.7   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000116         0   0.60710E-06  482815.7 3733669.3   435.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000117         0   0.60710E-06  482807.1 3733669.3   435.0     3.49     4.00
3.25     YES   HRDOW            NO
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY	AIRCRAFT
L0000121	0	0.60710E-06	482772.7	3733669.2	434.2	3.49	4.00	3.25	YES	HRDOW	NO
L0000122	0	0.60710E-06	482764.1	3733669.3	434.1	3.49	4.00	3.25	YES	HRDOW	NO
L0000123	0	0.60710E-06	482755.5	3733669.6	434.1	3.49	4.00	3.25	YES	HRDOW	NO
L0000124	0	0.60710E-06	482747.0	3733669.9	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000125	0	0.60710E-06	482738.4	3733670.2	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000126	0	0.60710E-06	482729.8	3733670.5	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000127	0	0.60710E-06	482721.2	3733670.7	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000128	0	0.60710E-06	482712.6	3733671.0	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000129	0	0.60710E-06	482704.0	3733671.2	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000130	0	0.60710E-06	482695.4	3733671.4	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000131	0	0.60710E-06	482686.9	3733671.6	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000132	0	0.60710E-06	482678.3	3733671.8	434.0	3.49	4.00				

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3.25     YES   HRDOW            NO
 L0000133         0   0.60710E-06  482669.7 3733671.9   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000134         0   0.60710E-06  482661.1 3733671.9   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000135         0   0.60710E-06  482652.5 3733672.0   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000136         0   0.60710E-06  482643.9 3733672.0   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000137         0   0.60710E-06  482635.3 3733672.1   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000138         0   0.60710E-06  482626.7 3733672.1   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000139         0   0.60710E-06  482618.1 3733672.2   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000140         0   0.60710E-06  482609.5 3733672.2   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000141         0   0.60710E-06  482601.0 3733672.2   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000142         0   0.60710E-06  482592.4 3733672.2   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000143         0   0.60710E-06  482583.8 3733672.2   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000144         0   0.60710E-06  482575.2 3733672.2   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000145         0   0.60710E-06  482566.6 3733672.3   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000146         0   0.60710E-06  482558.0 3733672.3   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000147         0   0.60710E-06  482549.4 3733672.3   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000148         0   0.60710E-06  482540.8 3733672.3   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000149         0   0.60710E-06  482532.2 3733672.3   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000150         0   0.60710E-06  482523.6 3733672.3   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000151         0   0.60710E-06  482515.1 3733672.3   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000152         0   0.60710E-06  482506.5 3733672.3   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000153         0   0.60710E-06  482497.9 3733672.4   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000154         0   0.60710E-06  482489.3 3733672.4   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000155         0   0.60710E-06  482480.7 3733672.4   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000156         0   0.60710E-06  482472.1 3733672.4   434.0     3.49     4.00
3.25     YES   HRDOW            NO
 L0000157         0   0.60710E-06  482463.5 3733672.4   434.0     3.49     4.00
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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE BY	EMISSION RATE SCALAR VARY	AIRCRAFT
L0000161	0	0.60710E-06	482429.2	3733672.5	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000162	0	0.60710E-06	482420.6	3733672.5	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000163	0	0.60710E-06	482412.0	3733672.5	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000164	0	0.60710E-06	482403.4	3733672.5	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000165	0	0.60710E-06	482394.8	3733672.5	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000166	0	0.60710E-06	482386.2	3733672.5	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000167	0	0.60710E-06	482377.6	3733672.5	434.0	3.49	4.00	3.25	YES	HRDOW	NO
L0000168	0	0.60710E-06	482369.0	3733672.6	433.9	3.49	4.00	3.25	YES	HRDOW	NO
L0000169	0	0.60710E-06	482360.4	3733672.6	433.9	3.49	4.00	3.25	YES	HRDOW	NO
L0000170	0	0.60710E-06	482351.8	3733672.6	433.8	3.49	4.00	3.25	YES	HRDOW	NO
L0000171	0	0.60710E-06	482343.3	3733672.6	433.6	3.49	4.00	3.25	YES	HRDOW	NO

*** SOURCE IDs DEFINING SOURCE GROUPS
***

SRCGROUP ID	SOURCE IDs
ALL	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 ,
	L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 ,
	L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 ,
	L0000025 , L0000026 , L0000027 , L0000028 , L0000029 , L0000030 , L0000031 , L0000032 ,
	L0000033 , L0000034 , L0000035 , L0000036 , L0000037 , L0000038 , L0000039 , L0000040 ,
	L0000041 , L0000042 , L0000043 , L0000044 , L0000045 , L0000046 , L0000047 , L0000048 ,
	L0000049 , L0000050 , L0000051 , L0000052 , L0000053 , L0000054 , L0000055 , L0000056 ,

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             L0000057    , L0000058    , L0000059    , L0000060    , L0000061    ,
L0000062    , L0000063    , L0000064    ,

             L0000065    , L0000066    , L0000067    , L0000068    , L0000069    ,
L0000070    , L0000071    , L0000072    ,

             L0000073    , L0000074    , L0000075    , L0000076    , L0000077    ,
L0000078    , L0000079    , L0000080    ,

             L0000081    , L0000082    , L0000083    , L0000084    , L0000085    ,
L0000086    , L0000087    , L0000088    ,

             L0000089    , L0000090    , L0000091    , L0000092    , L0000093    ,
L0000094    , L0000095    , L0000096    ,

             L0000097    , L0000098    , L0000099    , L0000100    , L0000101    ,
L0000102    , L0000103    , L0000104    ,

             L0000105    , L0000106    , L0000107    , L0000108    , L0000109    ,
L0000110    , L0000111    , L0000112    ,

             L0000113    , L0000114    , L0000115    , L0000116    , L0000117    ,
L0000118    , L0000119    , L0000120    ,

             L0000121    , L0000122    , L0000123    , L0000124    , L0000125    ,
L0000126    , L0000127    , L0000128    ,

             L0000129    , L0000130    , L0000131    , L0000132    , L0000133    ,
L0000134    , L0000135    , L0000136    ,

             L0000137    , L0000138    , L0000139    , L0000140    , L0000141    ,
L0000142    , L0000143    , L0000144    ,

             L0000145    , L0000146    , L0000147    , L0000148    , L0000149    ,
L0000150    , L0000151    , L0000152    ,

             L0000153    , L0000154    , L0000155    , L0000156    , L0000157    ,
L0000158    , L0000159    , L0000160    ,
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*** SOURCE IDs DEFINING SOURCE GROUPS
***

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 SRCGROUP ID                                                SOURCE IDs
 -----------                                                ----------


             L0000161    , L0000162    , L0000163    , L0000164    , L0000165    ,
L0000166    , L0000167    , L0000168    ,

             L0000169    , L0000170    , L0000171    , VOL1        , VOL2        ,
VOL3        , VOL4        , VOL5        ,

             VOL6        ,
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                      *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


              2189641.   L0000001    , L0000002    , L0000003    , L0000004    ,
L0000005    , L0000006    , L0000007    ,
 L0000008    ,

             L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
L0000014    , L0000015    , L0000016    ,

             L0000017    , L0000018    , L0000019    , L0000020    , L0000021    ,
L0000022    , L0000023    , L0000024    ,

             L0000025    , L0000026    , L0000027    , L0000028    , L0000029    ,
L0000030    , L0000031    , L0000032    ,

             L0000033    , L0000034    , L0000035    , L0000036    , L0000037    ,
L0000038    , L0000039    , L0000040    ,

             L0000041    , L0000042    , L0000043    , L0000044    , L0000045    ,
L0000046    , L0000047    , L0000048    ,

             L0000049    , L0000050    , L0000051    , L0000052    , L0000053    ,
L0000054    , L0000055    , L0000056    ,
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             L0000057    , L0000058    , L0000059    , L0000060    , L0000061    ,
L0000062    , L0000063    , L0000064    ,

             L0000065    , L0000066    , L0000067    , L0000068    , L0000069    ,
L0000070    , L0000071    , L0000072    ,

             L0000073    , L0000074    , L0000075    , L0000076    , L0000077    ,
L0000078    , L0000079    , L0000080    ,

             L0000081    , L0000082    , L0000083    , L0000084    , L0000085    ,
L0000086    , L0000087    , L0000088    ,

             L0000089    , L0000090    , L0000091    , L0000092    , L0000093    ,
L0000094    , L0000095    , L0000096    ,

             L0000097    , L0000098    , L0000099    , L0000100    , L0000101    ,
L0000102    , L0000103    , L0000104    ,

             L0000105    , L0000106    , L0000107    , L0000108    , L0000109    ,
L0000110    , L0000111    , L0000112    ,

             L0000113    , L0000114    , L0000115    , L0000116    , L0000117    ,
L0000118    , L0000119    , L0000120    ,

             L0000121    , L0000122    , L0000123    , L0000124    , L0000125    ,
L0000126    , L0000127    , L0000128    ,

             L0000129    , L0000130    , L0000131    , L0000132    , L0000133    ,
L0000134    , L0000135    , L0000136    ,

             L0000137    , L0000138    , L0000139    , L0000140    , L0000141    ,
L0000142    , L0000143    , L0000144    ,

             L0000145    , L0000146    , L0000147    , L0000148    , L0000149    ,
L0000150    , L0000151    , L0000152    ,

             L0000153    , L0000154    , L0000155    , L0000156    , L0000157    ,
L0000158    , L0000159    , L0000160    ,
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE  10
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                        *** SOURCE IDs DEFINED AS URBAN SOURCES
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  URBAN ID   URBAN POP   SOURCE IDs
  --------   ---------   ----------

             L0000161   , L0000162   , L0000163   , L0000164   , L0000165   ,
L0000166   , L0000167   , L0000168   ,

             L0000169   , L0000170   , L0000171   , VOL1   , VOL2   ,
VOL3   , VOL4   , VOL5   ,

             VOL6   ,

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000001   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000002   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                  DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

```
 SOURCE ID = L0000003     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000004     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000005   ; SOURCE TYPE = VOLUME   :

HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

- - - -

14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000006   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 SOURCE ID = L0000007   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 SOURCE ID = L0000008   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01

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14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000009     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
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6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000010   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000011     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE  22
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000012     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000013   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                              DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000014   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                          DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                          DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                          DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000015   ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000016   ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000017   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000018     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = L0000019   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
                                                    DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = L0000020   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

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 - - -
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    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000022     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000023   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -

                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000024   ; SOURCE TYPE = VOLUME   :

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE  35
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000025     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       09:40:52

                                  PAGE  36
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000026     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000027   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                  DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

```
 SOURCE ID = L0000028     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000029     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000030   ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00

14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000031   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 SOURCE ID = L0000032   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000033   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01

```
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       09:40:52

                                  PAGE  44
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000034     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000035   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000036     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE  47
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000037     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       09:40:52

                                  PAGE  48
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000038     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                            DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                   PAGE  49
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000039     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
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* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000040   ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000041   ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000042   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

```
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000043     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = L0000044   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
                                                    DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = L0000045   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

```
 - - -
```

```
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                        ***        09:40:52

                                   PAGE  57
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000047     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000048   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000049   ; SOURCE TYPE = VOLUME   :

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE  60
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000050     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       09:40:52

                                  PAGE  61
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000051     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000052   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

```
 SOURCE ID = L0000053     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE  64
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000054     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000055   ; SOURCE TYPE = VOLUME   :

HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

- - - -

14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000056   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000057   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000058   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01

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14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       09:40:52

                                 PAGE  69
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000059     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
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6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000060   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000061 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000062 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                            DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                            DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000063   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                            DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                            DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

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                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
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                                   PAGE  74
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000064     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
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* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000065   ; SOURCE TYPE = VOLUME   :
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - -

```
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE  77
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000067     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000068   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = L0000069   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -

                                                   DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                   DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                   DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = L0000070   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

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 - - -
```

```
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                   PAGE  82
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000072     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
                                            DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000073   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -

                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000074   ; SOURCE TYPE = VOLUME   :

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE  85
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000075     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE  86
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000076     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000077   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                  DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

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 SOURCE ID = L0000078     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE  89
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000079     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000080   ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00

14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000081   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 SOURCE ID = L0000082   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 SOURCE ID = L0000083   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01

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14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       09:40:52

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000084     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                            DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000085   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000086     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000087     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE  98
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000088     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                            DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                   PAGE  99
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000089     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52
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 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = L0000090   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
                                                    DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
↟ *** AERMOD - VERSION 23132 ***   ***
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05/03/24
 *** AERMET - VERSION 16216 ***   ***
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 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = L0000091   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000092   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                   PAGE 103
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000093     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000094   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                  DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000095   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

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 - - -
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                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000097   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000098   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000099   ; SOURCE TYPE = VOLUME   :

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE 110
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000100     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       09:40:52

                                 PAGE 111
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000101     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000102   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                  DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

```
 SOURCE ID = L0000103     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000104     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000105   ; SOURCE TYPE = VOLUME   :

HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

- - - -

14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000106   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01

14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000109   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                              DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000110   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000111 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000112 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00						

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000113   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                              DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000114   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                          DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                          DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                          DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000115 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000116 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000117   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                   PAGE 128
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000118     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/03/24
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                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = L0000119   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
                                                    DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = L0000120   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

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 - - -
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000122   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                              DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000123   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000124   ; SOURCE TYPE = VOLUME   :

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
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                                  PAGE 135
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000125     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
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    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       09:40:52

                                  PAGE 136
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000126     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000127   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                  DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

```
 SOURCE ID = L0000128     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE 139
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000129     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000130   ; SOURCE TYPE = VOLUME   :

HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

- - - -

14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000131   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01						

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14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       09:40:52

                                 PAGE 144
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000134     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000135   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000136 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000137 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00						

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000138   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

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                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                   PAGE 149
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000139     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52
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* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000140 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000141 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00
6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01
14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00
22 .0000E+00 23 .0000E+00 24 .0000E+00

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00
6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00
14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00
22 .0000E+00 23 .0000E+00 24 .0000E+00

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00
6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00
14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00
22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000142 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00
6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01
14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00
22 .0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00
6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00
14 .0000E+00 15 .0000E+00 16 .0000E+00

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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                   PAGE 153
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000143     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/03/24
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                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000144   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                  DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000145   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

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 - - -
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```
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                   PAGE 157
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000147     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
                                            DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000148   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000149   ; SOURCE TYPE = VOLUME   :

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE 160
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000150     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
```

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000151   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00

22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000152   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                  DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

```
 SOURCE ID = L0000153     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000154     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00

9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00

17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000155   ; SOURCE TYPE = VOLUME   :

HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

- - - -

14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000156   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000157   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000158   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01

14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000159   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                              DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000160   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000161 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000162 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000163   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                              DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

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                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                        ***        09:40:52

                                   PAGE 174
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000164     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                        ***        09:40:52
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* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000165 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000166 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00
6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01
14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00
22 .0000E+00 23 .0000E+00 24 .0000E+00

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00
6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00
14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00
22 .0000E+00 23 .0000E+00 24 .0000E+00

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00
6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00
14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00
22 .0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000167 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00
6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01
14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00
22 .0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00
6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00
14 .0000E+00 15 .0000E+00 16 .0000E+00

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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                   PAGE 178
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0000168     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 23132  ***   ***
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                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = L0000169   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
                                                    DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

 SOURCE ID = L0000170   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

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 - - -
```

```
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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 *** AERMET - VERSION  16216 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL1          ; SOURCE TYPE = VOLUME    :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 23132  ***   ***
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                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL2   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                 DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL3   ; SOURCE TYPE = VOLUME   :

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE 185
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL4         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                 DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                 DAY OF WEEK = SATURDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       09:40:52

                                  PAGE 186
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL5         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL6   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                  DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                  DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                      (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(483206.8, 3733449.9, 435.6, 435.6, 0.0); (483197.5, 3733502.1, 435.2, 435.2, 0.0);
(483013.0, 3733295.4, 435.0, 435.0, 0.0); (482921.3, 3733279.9, 435.0, 435.0, 0.0);
(483004.2, 3733358.2, 435.0, 435.0, 0.0); (482943.0, 3733222.1, 435.0, 435.0, 0.0);
(483576.0, 3733053.9, 437.0, 437.0, 0.0); (483712.9, 3733038.7, 437.4, 437.4, 0.0);
(483326.2, 3732789.9, 436.0, 436.0, 0.0); (483181.9, 3732838.7, 436.0, 436.0, 0.0);
(483392.2, 3732810.1, 436.7, 436.7, 0.0); (482867.7, 3732851.0, 435.0, 435.0, 0.0);
(483630.1, 3732851.5, 437.0, 437.0, 0.0); (482959.6, 3733603.3, 435.0, 435.0, 0.0);
(482960.0, 3733649.7, 435.0, 435.0, 0.0); (482856.2, 3733634.2, 435.0, 435.0, 0.0);
(482816.4, 3733631.3, 435.0, 435.0, 0.0); (483094.9, 3733654.3, 435.0, 435.0, 0.0);
(483176.1, 3733639.3, 436.0, 436.0, 0.0); (483267.8, 3733641.8, 436.0, 436.0, 0.0);
(483301.7, 3733642.6, 436.0, 436.0, 0.0); (483130.9, 3733648.8, 435.0, 435.0, 0.0);
(483299.3, 3733586.0, 436.0, 436.0, 0.0); (483323.1, 3733603.4, 436.0, 436.0, 0.0);
(483297.8, 3733710.2, 436.0, 436.0, 0.0); (483365.8, 3733652.2, 436.0, 436.0, 0.0);
(483234.1, 3733518.0, 436.0, 436.0, 0.0); (483233.3, 3733502.4, 436.0, 436.0, 0.0);
(483708.4, 3733587.9, 438.0, 438.0, 0.0); (483367.4, 3733628.2, 436.0, 436.0, 0.0);
(483489.8, 3733629.2, 437.0, 437.0, 0.0); (483469.2, 3733603.2, 437.0, 437.0, 0.0);
(483395.9, 3733616.4, 436.0, 436.0, 0.0); (482349.6, 3733527.0, 434.0, 434.0, 0.0);
(482357.8, 3733501.6, 434.0, 434.0, 0.0); (482270.4, 3733723.6, 433.0, 433.0, 0.0);
(482320.9, 3733736.9, 433.0, 433.0, 0.0); (482354.2, 3733907.3, 433.0, 433.0, 0.0);
(482347.8, 3733886.1, 433.0, 433.0, 0.0); (482297.6, 3733821.3, 433.0, 433.0, 0.0);
(482523.4, 3734103.9, 433.3, 433.3, 0.0); (482584.3, 3734097.5, 434.0, 434.0, 0.0);
(484156.4, 3733747.0, 441.0, 441.0, 0.0); (484156.6, 3733885.1, 441.5, 441.5, 0.0);
(484123.9, 3733944.6, 441.1, 441.1, 0.0); (483969.0, 3733570.2, 439.2, 439.2, 0.0);

                                          *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                                (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

                                       *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                                (METERS/SEC)

                                                    1.54,   3.09,   5.14,   8.23,   10.80,

                                        *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

```
   Surface file:   PERI_V9_ADJU\PERI_v9.SFC
                 Met Version:  16216
   Profile file:   PERI_V9_ADJU\PERI_v9.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3171                  Upper air station no.:     3190
                 Name: UNKNOWN                                 Name: UNKNOWN

                 Year:   2010                                  Year:   2010

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -
 10 01 01   1 01   -7.9  0.125 -9.000 -9.000 -999.  106.     21.2  0.19   0.61
1.00    1.30  335.    9.1  282.5    5.5
 10 01 01   1 02   -3.9  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  142.    9.1  280.9    5.5
 10 01 01   1 03   -3.9  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  324.    9.1  280.4    5.5
 10 01 01   1 04   -1.3  0.064 -9.000 -9.000 -999.   39.     18.3  0.19   0.61
1.00    0.40  294.    9.1  278.8    5.5
 10 01 01   1 05   -3.9  0.088 -9.000 -9.000 -999.   62.     15.0  0.19   0.61
1.00    0.90  205.    9.1  278.1    5.5
 10 01 01   1 06   -1.3  0.065 -9.000 -9.000 -999.   39.     18.3  0.19   0.61
1.00    0.40    3.    9.1  277.0    5.5
 10 01 01   1 07   -8.0  0.125 -9.000 -9.000 -999.  106.     21.0  0.19   0.61
1.00    1.30   99.    9.1  277.0    5.5
 10 01 01   1 08   -3.3  0.086 -9.000 -9.000 -999.   61.     16.8  0.19   0.61
0.54    0.90  319.    9.1  278.8    5.5
 10 01 01   1 09   20.1  0.128  0.307  0.010   49.  110.     -9.0  0.19   0.61
0.33    0.90  239.    9.1  284.2    5.5
 10 01 01   1 10   56.7  0.087  0.560  0.010  107.   62.     -1.0  0.19   0.61
0.26    0.40  188.    9.1  289.2    5.5
 10 01 01   1 11   81.5  0.323  0.867  0.008  277.  441.    -35.9  0.19   0.61
0.23    2.70  310.    9.1  290.9    5.5
 10 01 01   1 12   97.1  0.281  1.058  0.008  421.  357.    -19.7  0.19   0.61
0.22    2.20  357.    9.1  293.1    5.5
 10 01 01   1 13   92.2  0.279  1.117  0.008  523.  354.    -20.4  0.19   0.61
0.22    2.20  356.    9.1  293.8    5.5
 10 01 01   1 14   77.6  0.275  1.102  0.008  595.  347.    -23.2  0.19   0.61
0.23    2.20   50.    9.1  294.2    5.5
 10 01 01   1 15   54.9  0.230  1.006  0.008  640.  266.    -19.2  0.19   0.61
0.27    1.80   53.    9.1  293.8    5.5
 10 01 01   1 16   12.3  0.206  0.613  0.008  648.  225.    -61.5  0.19   0.61
0.36    1.80   11.    9.1  292.5    5.5
```

```
 10 01 01   1 17   -3.6  0.087 -9.000 -9.000 -999.   71.     15.6  0.19   0.61
0.64    0.90  351.    9.1  290.4    5.5
 10 01 01   1 18   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  186.    9.1  287.5    5.5
 10 01 01   1 19   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  275.    9.1  285.9    5.5
 10 01 01   1 20   -1.2  0.064 -9.000 -9.000 -999.   39.     18.1  0.19   0.61
1.00    0.40  181.    9.1  285.4    5.5
 10 01 01   1 21   -7.8  0.125 -9.000 -9.000 -999.  106.     21.3  0.19   0.61
1.00    1.30  318.    9.1  284.9    5.5
 10 01 01   1 22   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  196.    9.1  283.1    5.5
 10 01 01   1 23   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  330.    9.1  281.4    5.5
 10 01 01   1 24   -7.9  0.125 -9.000 -9.000 -999.  106.     21.2  0.19   0.61
1.00    1.30  332.    9.1  280.9    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01    5.5 0 -999.  -99.00   282.6   99.0  -99.00  -99.00
 10 01 01 01    9.1 1  335.    1.30  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
↟ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/03/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        09:40:52

                                  PAGE 191
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                             *** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                               *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF DPM      IN MICROGRAMS/M**3
                    **
```

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
483206.77	3733449.91	0.00860	483197.50	3733502.14	0.00408
483012.96	3733295.40	0.00472	482921.28	3733279.91	0.00166
483004.17	3733358.20	0.00362	482943.05	3733222.13	0.00204
483575.97	3733053.93	0.00070	483712.90	3733038.66	0.00035
483326.25	3732789.92	0.00089	483181.93	3732838.68	0.00094
483392.25	3732810.12	0.00095	482867.69	3732851.00	0.00047
483630.15	3732851.49	0.00052	482959.63	3733603.27	0.00101
482960.05	3733649.74	0.00135	482856.21	3733634.25	0.00089
482816.44	3733631.32	0.00081	483094.86	3733654.35	0.00185
483176.09	3733639.28	0.00169	483267.78	3733641.79	0.00214
483301.69	3733642.63	0.00170	483130.87	3733648.85	0.00177
483299.26	3733586.00	0.00218	483323.11	3733603.44	0.00144
483297.84	3733710.20	0.00088	483365.81	3733652.19	0.00082
483234.13	3733518.02	0.00331	483233.32	3733502.41	0.00389
483708.37	3733587.95	0.00024	483367.41	3733628.17	0.00091
483489.84	3733629.23	0.00051	483469.20	3733603.25	0.00060
483395.89	3733616.42	0.00082	482349.64	3733526.99	0.00017
482357.81	3733501.58	0.00016	482270.38	3733723.63	0.00013
482320.90	3733736.94	0.00017	482354.18	3733907.26	0.00012
482347.82	3733886.09	0.00012	482297.60	3733821.35	0.00012
482523.43	3734103.91	0.00012	482584.29	3734097.50	0.00013
484156.44	3733746.98	0.00008	484156.60	3733885.12	0.00008
484123.94	3733944.58	0.00008	483969.00	3733570.22	0.00013

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                                      *** THE SUMMARY OF MAXIMUM PERIOD (43824
HRS) RESULTS ***

                                   ** CONC OF DPM   IN MICROGRAMS/M**3
               **

                        NETWORK
GROUP ID   AVERAGE CONC   RECEPTOR (XR, YR,
ZELEV, ZHILL, ZFLAG) OF TYPE GRID-ID
- -
- - - - - - - - - - - - - - - - - -

ALL   1ST HIGHEST VALUE IS   0.00860 AT (483206.77, 3733449.91,
435.56,   435.56,   0.00) DC
          2ND HIGHEST VALUE IS   0.00472 AT (483012.96, 3733295.40,
435.00,   435.00,   0.00) DC
          3RD HIGHEST VALUE IS   0.00408 AT (483197.50, 3733502.14,
435.25,   435.25,   0.00) DC
          4TH HIGHEST VALUE IS   0.00389 AT (483233.32, 3733502.41,
436.00,   436.00,   0.00) DC
          5TH HIGHEST VALUE IS   0.00362 AT (483004.17, 3733358.20,
435.00,   435.00,   0.00) DC
          6TH HIGHEST VALUE IS   0.00331 AT (483234.13, 3733518.02,
436.00,   436.00,   0.00) DC
          7TH HIGHEST VALUE IS   0.00218 AT (483299.26, 3733586.00,
436.00,   436.00,   0.00) DC
          8TH HIGHEST VALUE IS   0.00214 AT (483267.78, 3733641.79,
436.00,   436.00,   0.00) DC
          9TH HIGHEST VALUE IS   0.00204 AT (482943.05, 3733222.13,
435.00,   435.00,   0.00) DC
         10TH HIGHEST VALUE IS   0.00185 AT (483094.86, 3733654.35,
435.00,   435.00,   0.00) DC

 *** RECEPTOR TYPES: GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of   0 Fatal Error Message(s)
 A Total of   4 Warning Message(s)
 A Total of   2028 Informational Message(s)

 A Total of   43824 Hours Were Processed

 A Total of   978 Calm Hours Identified

 A Total of   1050 Missing Hours Identified (2.40 Percent)

    ******** FATAL ERROR MESSAGES ********
               *** NONE ***

    ********   WARNING MESSAGES   ********
 ME W186   2603   MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187   2603   MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 MX W450   17521   CHKDAT: Record Out of Sequence in Meteorological File at:
  14010101
 MX W450   17521   CHKDAT: Record Out of Sequence in Meteorological File at:
2 year gap

    ****
    *** AERMOD Finishes Successfully ***
    ****
**
****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/2/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business
Park\15796-Ethanac Business Park.ADI
**

```
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 2189641 County_of_Riverside
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "15796-Ethanac Business Park.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling - Loading Docks
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.00002051
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 483217.219, 3733367.316, 436.00, 3.49, 4.00
** 483217.499, 3733214.792, 435.99, 3.49, 4.00
** ----------------------------------------------------------------------
   LOCATION L0000300     VOLUME   483217.226 3733363.021 435.99
   LOCATION L0000301     VOLUME   483217.242 3733354.431 435.96
   LOCATION L0000302     VOLUME   483217.258 3733345.841 435.94
   LOCATION L0000303     VOLUME   483217.274 3733337.251 435.91
   LOCATION L0000304     VOLUME   483217.290 3733328.661 435.91
   LOCATION L0000305     VOLUME   483217.306 3733320.071 435.91
   LOCATION L0000306     VOLUME   483217.321 3733311.481 435.91
   LOCATION L0000307     VOLUME   483217.337 3733302.891 435.91
   LOCATION L0000308     VOLUME   483217.353 3733294.301 435.91
   LOCATION L0000309     VOLUME   483217.369 3733285.711 435.91
```

```
   LOCATION L0000310     VOLUME   483217.385 3733277.121 435.91
   LOCATION L0000311     VOLUME   483217.401 3733268.531 435.91
   LOCATION L0000312     VOLUME   483217.416 3733259.941 435.91
   LOCATION L0000313     VOLUME   483217.432 3733251.351 435.91
   LOCATION L0000314     VOLUME   483217.448 3733242.761 435.91
   LOCATION L0000315     VOLUME   483217.464 3733234.171 435.91
   LOCATION L0000316     VOLUME   483217.480 3733225.581 435.91
   LOCATION L0000317     VOLUME   483217.495 3733216.991 435.91
** End of LINE VOLUME Source ID = SLINE1
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling - Trailer Parking
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 6.836E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 483255.982, 3733367.597, 436.00, 3.49, 4.00
** 483256.263, 3733215.354, 436.00, 3.49, 4.00
** ----------------------------------------------------------------------
   LOCATION L0000318     VOLUME   483255.990 3733363.302 436.00
   LOCATION L0000319     VOLUME   483256.005 3733354.712 436.00
   LOCATION L0000320     VOLUME   483256.021 3733346.122 436.00
   LOCATION L0000321     VOLUME   483256.037 3733337.532 436.00
   LOCATION L0000322     VOLUME   483256.053 3733328.942 436.00
   LOCATION L0000323     VOLUME   483256.069 3733320.352 436.00
   LOCATION L0000324     VOLUME   483256.085 3733311.762 436.00
   LOCATION L0000325     VOLUME   483256.101 3733303.172 436.00
   LOCATION L0000326     VOLUME   483256.116 3733294.582 436.00
   LOCATION L0000327     VOLUME   483256.132 3733285.992 436.00
   LOCATION L0000328     VOLUME   483256.148 3733277.402 436.00
   LOCATION L0000329     VOLUME   483256.164 3733268.812 436.00
   LOCATION L0000330     VOLUME   483256.180 3733260.222 436.00
   LOCATION L0000331     VOLUME   483256.196 3733251.632 436.00
   LOCATION L0000332     VOLUME   483256.211 3733243.042 436.00
   LOCATION L0000333     VOLUME   483256.227 3733234.452 436.00
   LOCATION L0000334     VOLUME   483256.243 3733225.862 436.00
   LOCATION L0000335     VOLUME   483256.259 3733217.272 436.00
** End of LINE VOLUME Source ID = SLINE2
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Travel
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 6.412E-06
```

```
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 6
** 483270.307, 3733401.585, 436.00, 3.49, 4.00
** 483241.937, 3733402.147, 436.00, 3.49, 4.00
** 483240.813, 3733321.250, 436.00, 3.49, 4.00
** 483238.847, 3733270.970, 435.96, 3.49, 4.00
** 483238.566, 3733212.545, 435.96, 3.49, 4.00
** 483238.847, 3733167.321, 436.00, 3.49, 4.00
** ----------------------------------------------------------------
   LOCATION L0000336     VOLUME   483266.013 3733401.670 436.00
   LOCATION L0000337     VOLUME   483257.425 3733401.840 436.00
   LOCATION L0000338     VOLUME   483248.836 3733402.010 436.00
   LOCATION L0000339     VOLUME   483241.914 3733400.458 436.00
   LOCATION L0000340     VOLUME   483241.794 3733391.868 436.00
   LOCATION L0000341     VOLUME   483241.675 3733383.279 436.00
   LOCATION L0000342     VOLUME   483241.556 3733374.690 436.00
   LOCATION L0000343     VOLUME   483241.436 3733366.101 436.00
   LOCATION L0000344     VOLUME   483241.317 3733357.512 436.00
   LOCATION L0000345     VOLUME   483241.198 3733348.922 436.00
   LOCATION L0000346     VOLUME   483241.079 3733340.333 436.00
   LOCATION L0000347     VOLUME   483240.959 3733331.744 436.00
   LOCATION L0000348     VOLUME   483240.840 3733323.155 436.00
   LOCATION L0000349     VOLUME   483240.552 3733314.570 436.00
   LOCATION L0000350     VOLUME   483240.217 3733305.987 436.00
   LOCATION L0000351     VOLUME   483239.881 3733297.403 436.00
   LOCATION L0000352     VOLUME   483239.545 3733288.820 436.00
   LOCATION L0000353     VOLUME   483239.210 3733280.237 436.00
   LOCATION L0000354     VOLUME   483238.874 3733271.653 436.00
   LOCATION L0000355     VOLUME   483238.809 3733263.064 436.00
   LOCATION L0000356     VOLUME   483238.768 3733254.474 436.00
   LOCATION L0000357     VOLUME   483238.727 3733245.884 436.00
   LOCATION L0000358     VOLUME   483238.685 3733237.294 436.00
   LOCATION L0000359     VOLUME   483238.644 3733228.704 436.00
   LOCATION L0000360     VOLUME   483238.603 3733220.114 436.00
   LOCATION L0000361     VOLUME   483238.573 3733211.524 436.00
   LOCATION L0000362     VOLUME   483238.626 3733202.934 436.00
   LOCATION L0000363     VOLUME   483238.679 3733194.345 436.00
   LOCATION L0000364     VOLUME   483238.733 3733185.755 436.00
   LOCATION L0000365     VOLUME   483238.786 3733177.165 436.00
   LOCATION L0000366     VOLUME   483238.839 3733168.575 436.00
** End of LINE VOLUME Source ID = SLINE3
** ----------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Off-Site Travel - Sherman Rd. (N) / Ethanac Rd. (W) 100%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.00001286
```

```
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 21
** 483284.673, 3733145.347, 436.00, 3.49, 4.00
** 483280.368, 3733399.871, 436.00, 3.49, 4.00
** 483280.368, 3733467.134, 436.00, 3.49, 4.00
** 483280.224, 3733544.058, 436.00, 3.49, 4.00
** 483280.542, 3733580.184, 436.00, 3.49, 4.00
** 483282.223, 3733604.400, 436.00, 3.49, 4.00
** 483283.066, 3733624.906, 436.00, 3.49, 4.00
** 483282.223, 3733661.986, 436.00, 3.49, 4.00
** 483281.661, 3733671.256, 436.00, 3.49, 4.00
** 483122.779, 3733671.059, 435.04, 3.49, 4.00
** 483060.165, 3733671.377, 435.00, 3.49, 4.00
** 482965.344, 3733671.801, 435.00, 3.49, 4.00
** 482946.698, 3733672.013, 435.00, 3.49, 4.00
** 482888.004, 3733672.860, 435.00, 3.49, 4.00
** 482862.895, 3733671.801, 435.00, 3.49, 4.00
** 482818.435, 3733669.359, 434.96, 3.49, 4.00
** 482768.710, 3733669.156, 434.02, 3.49, 4.00
** 482714.114, 3733670.983, 434.00, 3.49, 4.00
** 482679.408, 3733671.795, 434.00, 3.49, 4.00
** 482622.332, 3733672.177, 434.00, 3.49, 4.00
** 482574.360, 3733670.445, 434.00, 3.49, 4.00
** ------------------------------------------------------------------
   LOCATION L0000367     VOLUME   483284.600 3733149.642 436.00
   LOCATION L0000368     VOLUME   483284.455 3733158.230 436.00
   LOCATION L0000369     VOLUME   483284.310 3733166.819 436.00
   LOCATION L0000370     VOLUME   483284.165 3733175.408 436.00
   LOCATION L0000371     VOLUME   483284.019 3733183.997 436.00
   LOCATION L0000372     VOLUME   483283.874 3733192.585 436.00
   LOCATION L0000373     VOLUME   483283.729 3733201.174 436.00
   LOCATION L0000374     VOLUME   483283.584 3733209.763 436.00
   LOCATION L0000375     VOLUME   483283.438 3733218.352 436.00
   LOCATION L0000376     VOLUME   483283.293 3733226.940 436.00
   LOCATION L0000377     VOLUME   483283.148 3733235.529 436.00
   LOCATION L0000378     VOLUME   483283.002 3733244.118 436.00
   LOCATION L0000379     VOLUME   483282.857 3733252.707 436.00
   LOCATION L0000380     VOLUME   483282.712 3733261.296 436.00
   LOCATION L0000381     VOLUME   483282.567 3733269.884 436.00
   LOCATION L0000382     VOLUME   483282.421 3733278.473 436.00
   LOCATION L0000383     VOLUME   483282.276 3733287.062 436.00
   LOCATION L0000384     VOLUME   483282.131 3733295.651 436.00
   LOCATION L0000385     VOLUME   483281.986 3733304.239 436.00
   LOCATION L0000386     VOLUME   483281.840 3733312.828 436.00
   LOCATION L0000387     VOLUME   483281.695 3733321.417 436.00
   LOCATION L0000388     VOLUME   483281.550 3733330.006 436.00
   LOCATION L0000389     VOLUME   483281.405 3733338.594 436.00
   LOCATION L0000390     VOLUME   483281.259 3733347.183 436.00
   LOCATION L0000391     VOLUME   483281.114 3733355.772 436.00
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LOCATION L0000392 VOLUME 483280.969 3733364.361 436.00
LOCATION L0000393 VOLUME 483280.824 3733372.950 436.00
LOCATION L0000394 VOLUME 483280.678 3733381.538 436.00
LOCATION L0000395 VOLUME 483280.533 3733390.127 436.00
LOCATION L0000396 VOLUME 483280.388 3733398.716 436.00
LOCATION L0000397 VOLUME 483280.368 3733407.306 436.00
LOCATION L0000398 VOLUME 483280.368 3733415.896 436.00
LOCATION L0000399 VOLUME 483280.368 3733424.486 436.00
LOCATION L0000400 VOLUME 483280.368 3733433.076 436.00
LOCATION L0000401 VOLUME 483280.368 3733441.666 436.00
LOCATION L0000402 VOLUME 483280.368 3733450.256 436.00
LOCATION L0000403 VOLUME 483280.368 3733458.846 436.00
LOCATION L0000404 VOLUME 483280.368 3733467.436 436.00
LOCATION L0000405 VOLUME 483280.352 3733476.026 436.00
LOCATION L0000406 VOLUME 483280.336 3733484.616 436.00
LOCATION L0000407 VOLUME 483280.319 3733493.206 436.00
LOCATION L0000408 VOLUME 483280.303 3733501.796 436.00
LOCATION L0000409 VOLUME 483280.287 3733510.386 436.00
LOCATION L0000410 VOLUME 483280.271 3733518.976 436.00
LOCATION L0000411 VOLUME 483280.255 3733527.566 436.00
LOCATION L0000412 VOLUME 483280.239 3733536.156 436.00
LOCATION L0000413 VOLUME 483280.230 3733544.746 436.00
LOCATION L0000414 VOLUME 483280.306 3733553.335 436.00
LOCATION L0000415 VOLUME 483280.382 3733561.925 436.00
LOCATION L0000416 VOLUME 483280.457 3733570.515 436.00
LOCATION L0000417 VOLUME 483280.533 3733579.104 436.00
LOCATION L0000418 VOLUME 483281.062 3733587.676 436.00
LOCATION L0000419 VOLUME 483281.657 3733596.246 436.00
LOCATION L0000420 VOLUME 483282.240 3733604.816 436.00
LOCATION L0000421 VOLUME 483282.593 3733613.398 436.00
LOCATION L0000422 VOLUME 483282.946 3733621.981 436.00
LOCATION L0000423 VOLUME 483282.937 3733630.567 436.00
LOCATION L0000424 VOLUME 483282.742 3733639.155 436.00
LOCATION L0000425 VOLUME 483282.547 3733647.743 436.00
LOCATION L0000426 VOLUME 483282.352 3733656.330 436.00
LOCATION L0000427 VOLUME 483282.046 3733664.914 436.00
LOCATION L0000428 VOLUME 483279.425 3733671.253 436.00
LOCATION L0000429 VOLUME 483270.835 3733671.242 436.00
LOCATION L0000430 VOLUME 483262.245 3733671.232 436.00
LOCATION L0000431 VOLUME 483253.655 3733671.221 436.00
LOCATION L0000432 VOLUME 483245.065 3733671.210 436.00
LOCATION L0000433 VOLUME 483236.475 3733671.200 436.00
LOCATION L0000434 VOLUME 483227.885 3733671.189 436.00
LOCATION L0000435 VOLUME 483219.295 3733671.179 436.00
LOCATION L0000436 VOLUME 483210.705 3733671.168 436.00
LOCATION L0000437 VOLUME 483202.115 3733671.157 436.00
LOCATION L0000438 VOLUME 483193.525 3733671.147 436.00
LOCATION L0000439 VOLUME 483184.935 3733671.136 436.00
LOCATION L0000440 VOLUME 483176.345 3733671.125 436.00
LOCATION L0000441 VOLUME 483167.755 3733671.115 436.00

LOCATION L0000442 VOLUME 483159.165 3733671.104 435.97
LOCATION L0000443 VOLUME 483150.575 3733671.094 435.68
LOCATION L0000444 VOLUME 483141.985 3733671.083 435.40
LOCATION L0000445 VOLUME 483133.395 3733671.072 435.11
LOCATION L0000446 VOLUME 483124.805 3733671.062 435.00
LOCATION L0000447 VOLUME 483116.215 3733671.092 435.00
LOCATION L0000448 VOLUME 483107.626 3733671.136 435.00
LOCATION L0000449 VOLUME 483099.036 3733671.180 435.00
LOCATION L0000450 VOLUME 483090.446 3733671.223 435.00
LOCATION L0000451 VOLUME 483081.856 3733671.267 435.00
LOCATION L0000452 VOLUME 483073.266 3733671.311 435.00
LOCATION L0000453 VOLUME 483064.676 3733671.354 435.00
LOCATION L0000454 VOLUME 483056.086 3733671.395 435.00
LOCATION L0000455 VOLUME 483047.496 3733671.434 435.00
LOCATION L0000456 VOLUME 483038.906 3733671.472 435.00
LOCATION L0000457 VOLUME 483030.316 3733671.510 435.00
LOCATION L0000458 VOLUME 483021.727 3733671.549 435.00
LOCATION L0000459 VOLUME 483013.137 3733671.587 435.00
LOCATION L0000460 VOLUME 483004.547 3733671.626 435.00
LOCATION L0000461 VOLUME 482995.957 3733671.664 435.00
LOCATION L0000462 VOLUME 482987.367 3733671.702 435.00
LOCATION L0000463 VOLUME 482978.777 3733671.741 435.00
LOCATION L0000464 VOLUME 482970.187 3733671.779 435.00
LOCATION L0000465 VOLUME 482961.597 3733671.843 435.00
LOCATION L0000466 VOLUME 482953.008 3733671.941 435.00
LOCATION L0000467 VOLUME 482944.419 3733672.046 435.00
LOCATION L0000468 VOLUME 482935.829 3733672.170 435.00
LOCATION L0000469 VOLUME 482927.240 3733672.294 435.00
LOCATION L0000470 VOLUME 482918.651 3733672.418 435.00
LOCATION L0000471 VOLUME 482910.062 3733672.542 435.00
LOCATION L0000472 VOLUME 482901.473 3733672.666 435.00
LOCATION L0000473 VOLUME 482892.884 3733672.790 435.00
LOCATION L0000474 VOLUME 482884.298 3733672.704 435.00
LOCATION L0000475 VOLUME 482875.715 3733672.342 435.00
LOCATION L0000476 VOLUME 482867.133 3733671.980 435.00
LOCATION L0000477 VOLUME 482858.553 3733671.562 435.00
LOCATION L0000478 VOLUME 482849.976 3733671.091 435.00
LOCATION L0000479 VOLUME 482841.399 3733670.620 435.00
LOCATION L0000480 VOLUME 482832.822 3733670.149 435.00
LOCATION L0000481 VOLUME 482824.245 3733669.678 435.00
LOCATION L0000482 VOLUME 482815.664 3733669.348 435.00
LOCATION L0000483 VOLUME 482807.074 3733669.313 435.00
LOCATION L0000484 VOLUME 482798.484 3733669.278 434.95
LOCATION L0000485 VOLUME 482789.894 3733669.243 434.70
LOCATION L0000486 VOLUME 482781.304 3733669.208 434.44
LOCATION L0000487 VOLUME 482772.714 3733669.173 434.19
LOCATION L0000488 VOLUME 482764.127 3733669.310 434.09
LOCATION L0000489 VOLUME 482755.542 3733669.597 434.06
LOCATION L0000490 VOLUME 482746.956 3733669.884 434.03
LOCATION L0000491 VOLUME 482738.371 3733670.171 434.00

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   LOCATION L0000492     VOLUME   482729.786 3733670.459 434.00
   LOCATION L0000493     VOLUME   482721.201 3733670.746 434.00
   LOCATION L0000494     VOLUME   482712.615 3733671.018 434.00
   LOCATION L0000495     VOLUME   482704.027 3733671.219 434.00
   LOCATION L0000496     VOLUME   482695.440 3733671.420 434.00
   LOCATION L0000497     VOLUME   482686.852 3733671.621 434.00
   LOCATION L0000498     VOLUME   482678.264 3733671.802 434.00
   LOCATION L0000499     VOLUME   482669.674 3733671.860 434.00
   LOCATION L0000500     VOLUME   482661.085 3733671.918 434.00
   LOCATION L0000501     VOLUME   482652.495 3733671.975 434.00
   LOCATION L0000502     VOLUME   482643.905 3733672.033 434.00
   LOCATION L0000503     VOLUME   482635.315 3733672.090 434.00
   LOCATION L0000504     VOLUME   482626.725 3733672.148 434.00
   LOCATION L0000505     VOLUME   482618.138 3733672.026 434.00
   LOCATION L0000506     VOLUME   482609.554 3733671.716 434.00
   LOCATION L0000507     VOLUME   482600.969 3733671.406 434.00
   LOCATION L0000508     VOLUME   482592.385 3733671.096 434.00
   LOCATION L0000509     VOLUME   482583.801 3733670.786 434.00
   LOCATION L0000510     VOLUME   482575.216 3733670.476 434.00
** End of LINE VOLUME Source ID = SLINE4
** ----------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC Off-Site Travel - I-215 N Bound 60%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 1.793E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 8
** 482562.992, 3733680.126, 434.00, 3.49, 4.00
** 482554.399, 3733710.861, 434.00, 3.49, 4.00
** 482543.162, 3733744.902, 434.00, 3.49, 4.00
** 482526.307, 3733790.841, 434.00, 3.49, 4.00
** 482508.130, 3733846.363, 434.00, 3.49, 4.00
** 482501.190, 3733865.201, 434.00, 3.49, 4.00
** 482492.928, 3733904.530, 433.92, 3.49, 4.00
** 482484.996, 3733955.095, 433.36, 3.49, 4.00
** ----------------------------------------------------------------
   LOCATION L0000511     VOLUME   482561.836 3733684.262 434.00
   LOCATION L0000512     VOLUME   482559.523 3733692.535 434.00
   LOCATION L0000513     VOLUME   482557.210 3733700.808 434.00
   LOCATION L0000514     VOLUME   482554.897 3733709.080 434.00
   LOCATION L0000515     VOLUME   482552.286 3733717.262 434.00
   LOCATION L0000516     VOLUME   482549.594 3733725.420 434.00
   LOCATION L0000517     VOLUME   482546.901 3733733.577 434.00
   LOCATION L0000518     VOLUME   482544.208 3733741.734 434.00
   LOCATION L0000519     VOLUME   482541.353 3733749.834 434.00
   LOCATION L0000520     VOLUME   482538.394 3733757.898 434.00
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   LOCATION L0000521     VOLUME   482535.435 3733765.963 434.00
   LOCATION L0000522     VOLUME   482532.476 3733774.027 434.00
   LOCATION L0000523     VOLUME   482529.518 3733782.091 434.00
   LOCATION L0000524     VOLUME   482526.559 3733790.156 434.00
   LOCATION L0000525     VOLUME   482523.862 3733798.311 434.00
   LOCATION L0000526     VOLUME   482521.189 3733806.474 434.00
   LOCATION L0000527     VOLUME   482518.517 3733814.638 434.00
   LOCATION L0000528     VOLUME   482515.844 3733822.802 434.00
   LOCATION L0000529     VOLUME   482513.171 3733830.965 434.00
   LOCATION L0000530     VOLUME   482510.499 3733839.129 434.00
   LOCATION L0000531     VOLUME   482507.792 3733847.281 434.00
   LOCATION L0000532     VOLUME   482504.823 3733855.341 434.00
   LOCATION L0000533     VOLUME   482501.853 3733863.402 434.00
   LOCATION L0000534     VOLUME   482499.818 3733871.731 434.00
   LOCATION L0000535     VOLUME   482498.052 3733880.137 433.99
   LOCATION L0000536     VOLUME   482496.286 3733888.544 433.95
   LOCATION L0000537     VOLUME   482494.520 3733896.950 433.87
   LOCATION L0000538     VOLUME   482492.797 3733905.365 433.76
   LOCATION L0000539     VOLUME   482491.466 3733913.851 433.71
   LOCATION L0000540     VOLUME   482490.134 3733922.337 433.67
   LOCATION L0000541     VOLUME   482488.803 3733930.823 433.63
   LOCATION L0000542     VOLUME   482487.472 3733939.310 433.58
   LOCATION L0000543     VOLUME   482486.141 3733947.796 433.54
** End of LINE VOLUME Source ID = SLINE5
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC Off-Site Travel - I-215 S Bound 40%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 1.977E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 10
** 482546.798, 3733672.194, 434.00, 3.49, 4.00
** 482413.940, 3733673.846, 434.00, 3.49, 4.00
** 482343.215, 3733673.846, 433.87, 3.49, 4.00
** 482348.503, 3733652.695, 433.91, 3.49, 4.00
** 482358.417, 3733621.298, 434.00, 3.49, 4.00
** 482384.196, 3733550.573, 434.00, 3.49, 4.00
** 482391.797, 3733527.108, 434.00, 3.49, 4.00
** 482405.678, 3733487.118, 434.00, 3.49, 4.00
** 482411.296, 3733464.314, 434.00, 3.49, 4.00
** 482421.541, 3733415.402, 434.00, 3.49, 4.00
** ----------------------------------------------------------------------
   LOCATION L0000544     VOLUME   482542.503 3733672.247 434.00
   LOCATION L0000545     VOLUME   482533.914 3733672.354 434.00
   LOCATION L0000546     VOLUME   482525.325 3733672.461 434.00
   LOCATION L0000547     VOLUME   482516.735 3733672.568 434.00
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LOCATION L0000548 VOLUME 482508.146 3733672.675 434.00
LOCATION L0000549 VOLUME 482499.557 3733672.781 434.00
LOCATION L0000550 VOLUME 482490.967 3733672.888 434.00
LOCATION L0000551 VOLUME 482482.378 3733672.995 434.00
LOCATION L0000552 VOLUME 482473.789 3733673.102 434.00
LOCATION L0000553 VOLUME 482465.199 3733673.209 434.00
LOCATION L0000554 VOLUME 482456.610 3733673.316 434.00
LOCATION L0000555 VOLUME 482448.021 3733673.422 434.00
LOCATION L0000556 VOLUME 482439.431 3733673.529 434.00
LOCATION L0000557 VOLUME 482430.842 3733673.636 434.00
LOCATION L0000558 VOLUME 482422.253 3733673.743 434.00
LOCATION L0000559 VOLUME 482413.663 3733673.846 434.00
LOCATION L0000560 VOLUME 482405.073 3733673.846 434.00
LOCATION L0000561 VOLUME 482396.483 3733673.846 434.00
LOCATION L0000562 VOLUME 482387.893 3733673.846 434.00
LOCATION L0000563 VOLUME 482379.303 3733673.846 433.99
LOCATION L0000564 VOLUME 482370.713 3733673.846 433.92
LOCATION L0000565 VOLUME 482362.123 3733673.846 433.84
LOCATION L0000566 VOLUME 482353.533 3733673.846 433.77
LOCATION L0000567 VOLUME 482344.943 3733673.846 433.61
LOCATION L0000568 VOLUME 482344.879 3733667.190 433.79
LOCATION L0000569 VOLUME 482346.962 3733658.856 433.92
LOCATION L0000570 VOLUME 482349.177 3733650.560 433.99
LOCATION L0000571 VOLUME 482351.764 3733642.368 434.00
LOCATION L0000572 VOLUME 482354.350 3733634.177 434.00
LOCATION L0000573 VOLUME 482356.937 3733625.986 434.00
LOCATION L0000574 VOLUME 482359.676 3733617.846 434.00
LOCATION L0000575 VOLUME 482362.617 3733609.776 434.00
LOCATION L0000576 VOLUME 482365.559 3733601.705 434.00
LOCATION L0000577 VOLUME 482368.501 3733593.634 434.00
LOCATION L0000578 VOLUME 482371.442 3733585.564 434.00
LOCATION L0000579 VOLUME 482374.384 3733577.493 434.00
LOCATION L0000580 VOLUME 482377.325 3733569.422 434.00
LOCATION L0000581 VOLUME 482380.267 3733561.352 434.00
LOCATION L0000582 VOLUME 482383.209 3733553.281 434.00
LOCATION L0000583 VOLUME 482385.955 3733545.143 434.00
LOCATION L0000584 VOLUME 482388.602 3733536.971 434.00
LOCATION L0000585 VOLUME 482391.249 3733528.799 434.00
LOCATION L0000586 VOLUME 482394.031 3733520.673 434.00
LOCATION L0000587 VOLUME 482396.848 3733512.558 434.00
LOCATION L0000588 VOLUME 482399.664 3733504.443 434.00
LOCATION L0000589 VOLUME 482402.481 3733496.327 434.00
LOCATION L0000590 VOLUME 482405.298 3733488.212 434.00
LOCATION L0000591 VOLUME 482407.456 3733479.902 434.00
LOCATION L0000592 VOLUME 482409.511 3733471.562 434.00
LOCATION L0000593 VOLUME 482411.527 3733463.212 434.00
LOCATION L0000594 VOLUME 482413.288 3733454.805 434.00
LOCATION L0000595 VOLUME 482415.049 3733446.397 434.00
LOCATION L0000596 VOLUME 482416.810 3733437.990 434.00
LOCATION L0000597 VOLUME 482418.571 3733429.582 434.00

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   LOCATION L0000598     VOLUME   482420.332 3733421.175 434.00
** End of LINE VOLUME Source ID = SLINE6
   LOCATION STCK1        POINT      483263.400  3733364.750      436.000
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0000300     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000301     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000302     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000303     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000304     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000305     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000306     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000307     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000308     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000309     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000310     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000311     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000312     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000313     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000314     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000315     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000316     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000317     0.000001139      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0000318     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000319     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000320     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000321     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000322     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000323     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000324     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000325     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000326     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000327     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000328     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000329     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000330     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000331     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000332     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000333     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000334     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000335     0.0000003798      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0000336     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000337     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000338     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000339     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000340     0.0000002068      3.49      4.00      3.25
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   SRCPARAM L0000341     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000342     0.0000002068      3.49      4.00      3.25
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   SRCPARAM L0000344     0.0000002068      3.49      4.00      3.25
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   SRCPARAM L0000346     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000347     0.0000002068      3.49      4.00      3.25
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   SRCPARAM L0000349     0.0000002068      3.49      4.00      3.25
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   SRCPARAM L0000351     0.0000002068      3.49      4.00      3.25
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   SRCPARAM L0000359     0.0000002068      3.49      4.00      3.25
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   SRCPARAM L0000365     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000366     0.0000002068      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0000367     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000368     0.00000008931      3.49      4.00      3.25
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   SRCPARAM L0000370     0.00000008931      3.49      4.00      3.25
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   SRCPARAM L0000372     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000373     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000374     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000375     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000376     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000377     0.00000008931      3.49      4.00      3.25
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   SRCPARAM L0000381     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000382     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000383     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000384     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000385     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000386     0.00000008931      3.49      4.00      3.25
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   SRCPARAM L0000388     0.00000008931      3.49      4.00      3.25
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   SRCPARAM L0000507     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000508     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000509     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000510     0.00000008931      3.49      4.00      3.25
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0000511     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000512     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000513     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000514     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000515     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000516     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000517     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000518     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000519     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000520     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000521     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000522     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000523     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000524     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000525     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000526     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000527     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000528     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000529     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000530     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000531     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000532     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000533     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000534     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000535     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000536     0.00000005433      3.49      4.00      3.25
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   SRCPARAM L0000537     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000538     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000539     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000540     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000541     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000542     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000543     0.00000005433      3.49      4.00      3.25
** ----------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0000544     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000545     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000546     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000547     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000548     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000549     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000550     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000551     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000552     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000553     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000554     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000555     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000556     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000557     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000558     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000559     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000560     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000561     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000562     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000563     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000564     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000565     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000566     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000567     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000568     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000569     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000570     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000571     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000572     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000573     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000574     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000575     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000576     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000577     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000578     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000579     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000580     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000581     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000582     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000583     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000584     0.00000003595      3.49      4.00      3.25
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   SRCPARAM L0000585     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000586     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000587     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000588     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000589     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000590     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000591     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000592     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000593     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000594     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000595     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000596     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000597     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000598     0.00000003595      3.49      4.00      3.25
** ------------------------------------------------------------------
   SRCPARAM STCK1        0.0045625001     2.430   795.310     50.25      0.12


** Building Downwash **
   BUILDHGT STCK1           12.80    12.80    12.80    12.80    12.80    12.80
   BUILDHGT STCK1           12.80    12.80    12.80    12.80    12.80    12.80
   BUILDHGT STCK1           12.80     0.00     0.00     0.00     0.00     0.00
   BUILDHGT STCK1           12.80    12.80    12.80    12.80    12.80    12.80
   BUILDHGT STCK1           12.80     0.00     0.00    12.80    12.80    12.80
   BUILDHGT STCK1           12.80     0.00     0.00     0.00     0.00     0.00

   BUILDWID STCK1          166.49   196.08   219.72   236.69   246.46   248.74
   BUILDWID STCK1          243.47   230.79   211.59   231.10   243.59   248.68
   BUILDWID STCK1          246.21     0.00     0.00     0.00     0.00     0.00
   BUILDWID STCK1          166.49   196.08   219.72   236.69   246.46   248.74
   BUILDWID STCK1          243.47     0.00     0.00   231.10   243.59   248.68
   BUILDWID STCK1          246.21     0.00     0.00     0.00     0.00     0.00

   BUILDLEN STCK1          231.10   243.59   248.68   246.21   236.26   219.13
   BUILDLEN STCK1          195.35   165.62   132.07   166.49   196.08   219.72
   BUILDLEN STCK1          236.69     0.00     0.00     0.00     0.00     0.00
   BUILDLEN STCK1          231.10   243.59   248.68   246.21   236.26   219.13
   BUILDLEN STCK1          195.35     0.00     0.00   166.49   196.08   219.72
   BUILDLEN STCK1          236.69     0.00     0.00     0.00     0.00     0.00

   XBADJ    STCK1         -206.02  -226.16  -239.43  -245.42  -243.95  -235.08
   XBADJ    STCK1         -219.06  -196.38  -167.74  -170.47  -168.25  -160.92
   XBADJ    STCK1         -148.71     0.00     0.00     0.00     0.00     0.00
   XBADJ    STCK1          -25.08   -17.43    -9.25    -0.79     7.69    15.95
   XBADJ    STCK1           23.71     0.00     0.00     3.98   -27.83   -58.80
   XBADJ    STCK1          -87.98     0.00     0.00     0.00     0.00     0.00

   YBADJ    STCK1           87.22    70.21    51.06    30.36     8.74   -13.14
   YBADJ    STCK1          -34.63   -55.06   -73.83   -90.47  -104.36  -115.09
   YBADJ    STCK1         -122.31     0.00     0.00     0.00     0.00     0.00
```

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   YBADJ    STCK1          -87.22   -70.21   -51.06   -30.36    -8.74    13.14
   YBADJ    STCK1           34.63     0.00     0.00    90.47   104.36   115.09
   YBADJ    STCK1          122.31     0.00     0.00     0.00     0.00     0.00

   URBANSRC ALL

** Variable Emissions Type: "By Hour / Seven Days (HRDOW7)"
** Variable Emission Scenario: "Scenario 2"
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "15796-Ethanac Business Park.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
```

```
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "15796-Ethanac Business Park.AD\PE00GALL.PLT" 31
   SUMMFILE "15796-Ethanac Business Park.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    North American Datum 1983
** DTMRGN   CONUS
** UNITS    m
** ZONE     11
** ZONEINX  0
**
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 5/2/2024
** File: C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business
Park\15796-Ethanac Business Park.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796-
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 2189641 County_of_Riverside
```

```
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "15796-Ethanac Business Park.err"
CO FINISHED
**
************************************
** AERMOD Source Pathway
************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling - Loading Docks
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.00002051
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 483217.219, 3733367.316, 436.00, 3.49, 4.00
** 483217.499, 3733214.792, 435.99, 3.49, 4.00
** ------------------------------------------------------------------
   LOCATION L0000300     VOLUME   483217.226 3733363.021 435.99
   LOCATION L0000301     VOLUME   483217.242 3733354.431 435.96
   LOCATION L0000302     VOLUME   483217.258 3733345.841 435.94
   LOCATION L0000303     VOLUME   483217.274 3733337.251 435.91
   LOCATION L0000304     VOLUME   483217.290 3733328.661 435.91
   LOCATION L0000305     VOLUME   483217.306 3733320.071 435.91
   LOCATION L0000306     VOLUME   483217.321 3733311.481 435.91
   LOCATION L0000307     VOLUME   483217.337 3733302.891 435.91
   LOCATION L0000308     VOLUME   483217.353 3733294.301 435.91
   LOCATION L0000309     VOLUME   483217.369 3733285.711 435.91
   LOCATION L0000310     VOLUME   483217.385 3733277.121 435.91
   LOCATION L0000311     VOLUME   483217.401 3733268.531 435.91
   LOCATION L0000312     VOLUME   483217.416 3733259.941 435.91
   LOCATION L0000313     VOLUME   483217.432 3733251.351 435.91
   LOCATION L0000314     VOLUME   483217.448 3733242.761 435.91
   LOCATION L0000315     VOLUME   483217.464 3733234.171 435.91
   LOCATION L0000316     VOLUME   483217.480 3733225.581 435.91
   LOCATION L0000317     VOLUME   483217.495 3733216.991 435.91
** End of LINE VOLUME Source ID = SLINE1
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling - Trailer Parking
```

```
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 6.836E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 483255.982, 3733367.597, 436.00, 3.49, 4.00
** 483256.263, 3733215.354, 436.00, 3.49, 4.00
** ----------------------------------------------------------------
   LOCATION L0000318     VOLUME   483255.990 3733363.302 436.00
   LOCATION L0000319     VOLUME   483256.005 3733354.712 436.00
   LOCATION L0000320     VOLUME   483256.021 3733346.122 436.00
   LOCATION L0000321     VOLUME   483256.037 3733337.532 436.00
   LOCATION L0000322     VOLUME   483256.053 3733328.942 436.00
   LOCATION L0000323     VOLUME   483256.069 3733320.352 436.00
   LOCATION L0000324     VOLUME   483256.085 3733311.762 436.00
   LOCATION L0000325     VOLUME   483256.101 3733303.172 436.00
   LOCATION L0000326     VOLUME   483256.116 3733294.582 436.00
   LOCATION L0000327     VOLUME   483256.132 3733285.992 436.00
   LOCATION L0000328     VOLUME   483256.148 3733277.402 436.00
   LOCATION L0000329     VOLUME   483256.164 3733268.812 436.00
   LOCATION L0000330     VOLUME   483256.180 3733260.222 436.00
   LOCATION L0000331     VOLUME   483256.196 3733251.632 436.00
   LOCATION L0000332     VOLUME   483256.211 3733243.042 436.00
   LOCATION L0000333     VOLUME   483256.227 3733234.452 436.00
   LOCATION L0000334     VOLUME   483256.243 3733225.862 436.00
   LOCATION L0000335     VOLUME   483256.259 3733217.272 436.00
** End of LINE VOLUME Source ID = SLINE2
** ----------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Travel
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 6.412E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 6
** 483270.307, 3733401.585, 436.00, 3.49, 4.00
** 483241.937, 3733402.147, 436.00, 3.49, 4.00
** 483240.813, 3733321.250, 436.00, 3.49, 4.00
** 483238.847, 3733270.970, 435.96, 3.49, 4.00
** 483238.566, 3733212.545, 435.96, 3.49, 4.00
** 483238.847, 3733167.321, 436.00, 3.49, 4.00
** ----------------------------------------------------------------
   LOCATION L0000336     VOLUME   483266.013 3733401.670 436.00
   LOCATION L0000337     VOLUME   483257.425 3733401.840 436.00
   LOCATION L0000338     VOLUME   483248.836 3733402.010 436.00
```

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   LOCATION L0000339     VOLUME   483241.914 3733400.458 436.00
   LOCATION L0000340     VOLUME   483241.794 3733391.868 436.00
   LOCATION L0000341     VOLUME   483241.675 3733383.279 436.00
   LOCATION L0000342     VOLUME   483241.556 3733374.690 436.00
   LOCATION L0000343     VOLUME   483241.436 3733366.101 436.00
   LOCATION L0000344     VOLUME   483241.317 3733357.512 436.00
   LOCATION L0000345     VOLUME   483241.198 3733348.922 436.00
   LOCATION L0000346     VOLUME   483241.079 3733340.333 436.00
   LOCATION L0000347     VOLUME   483240.959 3733331.744 436.00
   LOCATION L0000348     VOLUME   483240.840 3733323.155 436.00
   LOCATION L0000349     VOLUME   483240.552 3733314.570 436.00
   LOCATION L0000350     VOLUME   483240.217 3733305.987 436.00
   LOCATION L0000351     VOLUME   483239.881 3733297.403 436.00
   LOCATION L0000352     VOLUME   483239.545 3733288.820 436.00
   LOCATION L0000353     VOLUME   483239.210 3733280.237 436.00
   LOCATION L0000354     VOLUME   483238.874 3733271.653 436.00
   LOCATION L0000355     VOLUME   483238.809 3733263.064 436.00
   LOCATION L0000356     VOLUME   483238.768 3733254.474 436.00
   LOCATION L0000357     VOLUME   483238.727 3733245.884 436.00
   LOCATION L0000358     VOLUME   483238.685 3733237.294 436.00
   LOCATION L0000359     VOLUME   483238.644 3733228.704 436.00
   LOCATION L0000360     VOLUME   483238.603 3733220.114 436.00
   LOCATION L0000361     VOLUME   483238.573 3733211.524 436.00
   LOCATION L0000362     VOLUME   483238.626 3733202.934 436.00
   LOCATION L0000363     VOLUME   483238.679 3733194.345 436.00
   LOCATION L0000364     VOLUME   483238.733 3733185.755 436.00
   LOCATION L0000365     VOLUME   483238.786 3733177.165 436.00
   LOCATION L0000366     VOLUME   483238.839 3733168.575 436.00
** End of LINE VOLUME Source ID = SLINE3
** ----------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Off-Site Travel - Sherman Rd. (N) / Ethanac Rd. (W) 100%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.00001286
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 21
** 483284.673, 3733145.347, 436.00, 3.49, 4.00
** 483280.368, 3733399.871, 436.00, 3.49, 4.00
** 483280.368, 3733467.134, 436.00, 3.49, 4.00
** 483280.224, 3733544.058, 436.00, 3.49, 4.00
** 483280.542, 3733580.184, 436.00, 3.49, 4.00
** 483282.223, 3733604.400, 436.00, 3.49, 4.00
** 483283.066, 3733624.906, 436.00, 3.49, 4.00
** 483282.223, 3733661.986, 436.00, 3.49, 4.00
** 483281.661, 3733671.256, 436.00, 3.49, 4.00
** 483122.779, 3733671.059, 435.04, 3.49, 4.00
```

```
** 483060.165, 3733671.377, 435.00, 3.49, 4.00
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** 482574.360, 3733670.445, 434.00, 3.49, 4.00
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   LOCATION L0000368     VOLUME   483284.455 3733158.230 436.00
   LOCATION L0000369     VOLUME   483284.310 3733166.819 436.00
   LOCATION L0000370     VOLUME   483284.165 3733175.408 436.00
   LOCATION L0000371     VOLUME   483284.019 3733183.997 436.00
   LOCATION L0000372     VOLUME   483283.874 3733192.585 436.00
   LOCATION L0000373     VOLUME   483283.729 3733201.174 436.00
   LOCATION L0000374     VOLUME   483283.584 3733209.763 436.00
   LOCATION L0000375     VOLUME   483283.438 3733218.352 436.00
   LOCATION L0000376     VOLUME   483283.293 3733226.940 436.00
   LOCATION L0000377     VOLUME   483283.148 3733235.529 436.00
   LOCATION L0000378     VOLUME   483283.002 3733244.118 436.00
   LOCATION L0000379     VOLUME   483282.857 3733252.707 436.00
   LOCATION L0000380     VOLUME   483282.712 3733261.296 436.00
   LOCATION L0000381     VOLUME   483282.567 3733269.884 436.00
   LOCATION L0000382     VOLUME   483282.421 3733278.473 436.00
   LOCATION L0000383     VOLUME   483282.276 3733287.062 436.00
   LOCATION L0000384     VOLUME   483282.131 3733295.651 436.00
   LOCATION L0000385     VOLUME   483281.986 3733304.239 436.00
   LOCATION L0000386     VOLUME   483281.840 3733312.828 436.00
   LOCATION L0000387     VOLUME   483281.695 3733321.417 436.00
   LOCATION L0000388     VOLUME   483281.550 3733330.006 436.00
   LOCATION L0000389     VOLUME   483281.405 3733338.594 436.00
   LOCATION L0000390     VOLUME   483281.259 3733347.183 436.00
   LOCATION L0000391     VOLUME   483281.114 3733355.772 436.00
   LOCATION L0000392     VOLUME   483280.969 3733364.361 436.00
   LOCATION L0000393     VOLUME   483280.824 3733372.950 436.00
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   LOCATION L0000395     VOLUME   483280.533 3733390.127 436.00
   LOCATION L0000396     VOLUME   483280.388 3733398.716 436.00
   LOCATION L0000397     VOLUME   483280.368 3733407.306 436.00
   LOCATION L0000398     VOLUME   483280.368 3733415.896 436.00
   LOCATION L0000399     VOLUME   483280.368 3733424.486 436.00
   LOCATION L0000400     VOLUME   483280.368 3733433.076 436.00
   LOCATION L0000401     VOLUME   483280.368 3733441.666 436.00
   LOCATION L0000402     VOLUME   483280.368 3733450.256 436.00
   LOCATION L0000403     VOLUME   483280.368 3733458.846 436.00
   LOCATION L0000404     VOLUME   483280.368 3733467.436 436.00
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LOCATION L0000405 VOLUME 483280.352 3733476.026 436.00
LOCATION L0000406 VOLUME 483280.336 3733484.616 436.00
LOCATION L0000407 VOLUME 483280.319 3733493.206 436.00
LOCATION L0000408 VOLUME 483280.303 3733501.796 436.00
LOCATION L0000409 VOLUME 483280.287 3733510.386 436.00
LOCATION L0000410 VOLUME 483280.271 3733518.976 436.00
LOCATION L0000411 VOLUME 483280.255 3733527.566 436.00
LOCATION L0000412 VOLUME 483280.239 3733536.156 436.00
LOCATION L0000413 VOLUME 483280.230 3733544.746 436.00
LOCATION L0000414 VOLUME 483280.306 3733553.335 436.00
LOCATION L0000415 VOLUME 483280.382 3733561.925 436.00
LOCATION L0000416 VOLUME 483280.457 3733570.515 436.00
LOCATION L0000417 VOLUME 483280.533 3733579.104 436.00
LOCATION L0000418 VOLUME 483281.062 3733587.676 436.00
LOCATION L0000419 VOLUME 483281.657 3733596.246 436.00
LOCATION L0000420 VOLUME 483282.240 3733604.816 436.00
LOCATION L0000421 VOLUME 483282.593 3733613.398 436.00
LOCATION L0000422 VOLUME 483282.946 3733621.981 436.00
LOCATION L0000423 VOLUME 483282.937 3733630.567 436.00
LOCATION L0000424 VOLUME 483282.742 3733639.155 436.00
LOCATION L0000425 VOLUME 483282.547 3733647.743 436.00
LOCATION L0000426 VOLUME 483282.352 3733656.330 436.00
LOCATION L0000427 VOLUME 483282.046 3733664.914 436.00
LOCATION L0000428 VOLUME 483279.425 3733671.253 436.00
LOCATION L0000429 VOLUME 483270.835 3733671.242 436.00
LOCATION L0000430 VOLUME 483262.245 3733671.232 436.00
LOCATION L0000431 VOLUME 483253.655 3733671.221 436.00
LOCATION L0000432 VOLUME 483245.065 3733671.210 436.00
LOCATION L0000433 VOLUME 483236.475 3733671.200 436.00
LOCATION L0000434 VOLUME 483227.885 3733671.189 436.00
LOCATION L0000435 VOLUME 483219.295 3733671.179 436.00
LOCATION L0000436 VOLUME 483210.705 3733671.168 436.00
LOCATION L0000437 VOLUME 483202.115 3733671.157 436.00
LOCATION L0000438 VOLUME 483193.525 3733671.147 436.00
LOCATION L0000439 VOLUME 483184.935 3733671.136 436.00
LOCATION L0000440 VOLUME 483176.345 3733671.125 436.00
LOCATION L0000441 VOLUME 483167.755 3733671.115 436.00
LOCATION L0000442 VOLUME 483159.165 3733671.104 435.97
LOCATION L0000443 VOLUME 483150.575 3733671.094 435.68
LOCATION L0000444 VOLUME 483141.985 3733671.083 435.40
LOCATION L0000445 VOLUME 483133.395 3733671.072 435.11
LOCATION L0000446 VOLUME 483124.805 3733671.062 435.00
LOCATION L0000447 VOLUME 483116.215 3733671.092 435.00
LOCATION L0000448 VOLUME 483107.626 3733671.136 435.00
LOCATION L0000449 VOLUME 483099.036 3733671.180 435.00
LOCATION L0000450 VOLUME 483090.446 3733671.223 435.00
LOCATION L0000451 VOLUME 483081.856 3733671.267 435.00
LOCATION L0000452 VOLUME 483073.266 3733671.311 435.00
LOCATION L0000453 VOLUME 483064.676 3733671.354 435.00
LOCATION L0000454 VOLUME 483056.086 3733671.395 435.00

LOCATION L0000455 VOLUME 483047.496 3733671.434 435.00
LOCATION L0000456 VOLUME 483038.906 3733671.472 435.00
LOCATION L0000457 VOLUME 483030.316 3733671.510 435.00
LOCATION L0000458 VOLUME 483021.727 3733671.549 435.00
LOCATION L0000459 VOLUME 483013.137 3733671.587 435.00
LOCATION L0000460 VOLUME 483004.547 3733671.626 435.00
LOCATION L0000461 VOLUME 482995.957 3733671.664 435.00
LOCATION L0000462 VOLUME 482987.367 3733671.702 435.00
LOCATION L0000463 VOLUME 482978.777 3733671.741 435.00
LOCATION L0000464 VOLUME 482970.187 3733671.779 435.00
LOCATION L0000465 VOLUME 482961.597 3733671.843 435.00
LOCATION L0000466 VOLUME 482953.008 3733671.941 435.00
LOCATION L0000467 VOLUME 482944.419 3733672.046 435.00
LOCATION L0000468 VOLUME 482935.829 3733672.170 435.00
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LOCATION L0000470 VOLUME 482918.651 3733672.418 435.00
LOCATION L0000471 VOLUME 482910.062 3733672.542 435.00
LOCATION L0000472 VOLUME 482901.473 3733672.666 435.00
LOCATION L0000473 VOLUME 482892.884 3733672.790 435.00
LOCATION L0000474 VOLUME 482884.298 3733672.704 435.00
LOCATION L0000475 VOLUME 482875.715 3733672.342 435.00
LOCATION L0000476 VOLUME 482867.133 3733671.980 435.00
LOCATION L0000477 VOLUME 482858.553 3733671.562 435.00
LOCATION L0000478 VOLUME 482849.976 3733671.091 435.00
LOCATION L0000479 VOLUME 482841.399 3733670.620 435.00
LOCATION L0000480 VOLUME 482832.822 3733670.149 435.00
LOCATION L0000481 VOLUME 482824.245 3733669.678 435.00
LOCATION L0000482 VOLUME 482815.664 3733669.348 435.00
LOCATION L0000483 VOLUME 482807.074 3733669.313 435.00
LOCATION L0000484 VOLUME 482798.484 3733669.278 434.95
LOCATION L0000485 VOLUME 482789.894 3733669.243 434.70
LOCATION L0000486 VOLUME 482781.304 3733669.208 434.44
LOCATION L0000487 VOLUME 482772.714 3733669.173 434.19
LOCATION L0000488 VOLUME 482764.127 3733669.310 434.09
LOCATION L0000489 VOLUME 482755.542 3733669.597 434.06
LOCATION L0000490 VOLUME 482746.956 3733669.884 434.03
LOCATION L0000491 VOLUME 482738.371 3733670.171 434.00
LOCATION L0000492 VOLUME 482729.786 3733670.459 434.00
LOCATION L0000493 VOLUME 482721.201 3733670.746 434.00
LOCATION L0000494 VOLUME 482712.615 3733671.018 434.00
LOCATION L0000495 VOLUME 482704.027 3733671.219 434.00
LOCATION L0000496 VOLUME 482695.440 3733671.420 434.00
LOCATION L0000497 VOLUME 482686.852 3733671.621 434.00
LOCATION L0000498 VOLUME 482678.264 3733671.802 434.00
LOCATION L0000499 VOLUME 482669.674 3733671.860 434.00
LOCATION L0000500 VOLUME 482661.085 3733671.918 434.00
LOCATION L0000501 VOLUME 482652.495 3733671.975 434.00
LOCATION L0000502 VOLUME 482643.905 3733672.033 434.00
LOCATION L0000503 VOLUME 482635.315 3733672.090 434.00
LOCATION L0000504 VOLUME 482626.725 3733672.148 434.00

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   LOCATION L0000505     VOLUME   482618.138 3733672.026 434.00
   LOCATION L0000506     VOLUME   482609.554 3733671.716 434.00
   LOCATION L0000507     VOLUME   482600.969 3733671.406 434.00
   LOCATION L0000508     VOLUME   482592.385 3733671.096 434.00
   LOCATION L0000509     VOLUME   482583.801 3733670.786 434.00
   LOCATION L0000510     VOLUME   482575.216 3733670.476 434.00
** End of LINE VOLUME Source ID = SLINE4
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC Off-Site Travel - I-215 N Bound 60%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 1.793E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 8
** 482562.992, 3733680.126, 434.00, 3.49, 4.00
** 482554.399, 3733710.861, 434.00, 3.49, 4.00
** 482543.162, 3733744.902, 434.00, 3.49, 4.00
** 482526.307, 3733790.841, 434.00, 3.49, 4.00
** 482508.130, 3733846.363, 434.00, 3.49, 4.00
** 482501.190, 3733865.201, 434.00, 3.49, 4.00
** 482492.928, 3733904.530, 433.92, 3.49, 4.00
** 482484.996, 3733955.095, 433.36, 3.49, 4.00
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   LOCATION L0000511     VOLUME   482561.836 3733684.262 434.00
   LOCATION L0000512     VOLUME   482559.523 3733692.535 434.00
   LOCATION L0000513     VOLUME   482557.210 3733700.808 434.00
   LOCATION L0000514     VOLUME   482554.897 3733709.080 434.00
   LOCATION L0000515     VOLUME   482552.286 3733717.262 434.00
   LOCATION L0000516     VOLUME   482549.594 3733725.420 434.00
   LOCATION L0000517     VOLUME   482546.901 3733733.577 434.00
   LOCATION L0000518     VOLUME   482544.208 3733741.734 434.00
   LOCATION L0000519     VOLUME   482541.353 3733749.834 434.00
   LOCATION L0000520     VOLUME   482538.394 3733757.898 434.00
   LOCATION L0000521     VOLUME   482535.435 3733765.963 434.00
   LOCATION L0000522     VOLUME   482532.476 3733774.027 434.00
   LOCATION L0000523     VOLUME   482529.518 3733782.091 434.00
   LOCATION L0000524     VOLUME   482526.559 3733790.156 434.00
   LOCATION L0000525     VOLUME   482523.862 3733798.311 434.00
   LOCATION L0000526     VOLUME   482521.189 3733806.474 434.00
   LOCATION L0000527     VOLUME   482518.517 3733814.638 434.00
   LOCATION L0000528     VOLUME   482515.844 3733822.802 434.00
   LOCATION L0000529     VOLUME   482513.171 3733830.965 434.00
   LOCATION L0000530     VOLUME   482510.499 3733839.129 434.00
   LOCATION L0000531     VOLUME   482507.792 3733847.281 434.00
   LOCATION L0000532     VOLUME   482504.823 3733855.341 434.00
   LOCATION L0000533     VOLUME   482501.853 3733863.402 434.00
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   LOCATION L0000534     VOLUME   482499.818 3733871.731 434.00
   LOCATION L0000535     VOLUME   482498.052 3733880.137 433.99
   LOCATION L0000536     VOLUME   482496.286 3733888.544 433.95
   LOCATION L0000537     VOLUME   482494.520 3733896.950 433.87
   LOCATION L0000538     VOLUME   482492.797 3733905.365 433.76
   LOCATION L0000539     VOLUME   482491.466 3733913.851 433.71
   LOCATION L0000540     VOLUME   482490.134 3733922.337 433.67
   LOCATION L0000541     VOLUME   482488.803 3733930.823 433.63
   LOCATION L0000542     VOLUME   482487.472 3733939.310 433.58
   LOCATION L0000543     VOLUME   482486.141 3733947.796 433.54
** End of LINE VOLUME Source ID = SLINE5
** ----------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC Off-Site Travel - I-215 S Bound 40%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 1.977E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 10
** 482546.798, 3733672.194, 434.00, 3.49, 4.00
** 482413.940, 3733673.846, 434.00, 3.49, 4.00
** 482343.215, 3733673.846, 433.87, 3.49, 4.00
** 482348.503, 3733652.695, 433.91, 3.49, 4.00
** 482358.417, 3733621.298, 434.00, 3.49, 4.00
** 482384.196, 3733550.573, 434.00, 3.49, 4.00
** 482391.797, 3733527.108, 434.00, 3.49, 4.00
** 482405.678, 3733487.118, 434.00, 3.49, 4.00
** 482411.296, 3733464.314, 434.00, 3.49, 4.00
** 482421.541, 3733415.402, 434.00, 3.49, 4.00
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   LOCATION L0000544     VOLUME   482542.503 3733672.247 434.00
   LOCATION L0000545     VOLUME   482533.914 3733672.354 434.00
   LOCATION L0000546     VOLUME   482525.325 3733672.461 434.00
   LOCATION L0000547     VOLUME   482516.735 3733672.568 434.00
   LOCATION L0000548     VOLUME   482508.146 3733672.675 434.00
   LOCATION L0000549     VOLUME   482499.557 3733672.781 434.00
   LOCATION L0000550     VOLUME   482490.967 3733672.888 434.00
   LOCATION L0000551     VOLUME   482482.378 3733672.995 434.00
   LOCATION L0000552     VOLUME   482473.789 3733673.102 434.00
   LOCATION L0000553     VOLUME   482465.199 3733673.209 434.00
   LOCATION L0000554     VOLUME   482456.610 3733673.316 434.00
   LOCATION L0000555     VOLUME   482448.021 3733673.422 434.00
   LOCATION L0000556     VOLUME   482439.431 3733673.529 434.00
   LOCATION L0000557     VOLUME   482430.842 3733673.636 434.00
   LOCATION L0000558     VOLUME   482422.253 3733673.743 434.00
   LOCATION L0000559     VOLUME   482413.663 3733673.846 434.00
   LOCATION L0000560     VOLUME   482405.073 3733673.846 434.00
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   LOCATION L0000561     VOLUME   482396.483 3733673.846 434.00
   LOCATION L0000562     VOLUME   482387.893 3733673.846 434.00
   LOCATION L0000563     VOLUME   482379.303 3733673.846 433.99
   LOCATION L0000564     VOLUME   482370.713 3733673.846 433.92
   LOCATION L0000565     VOLUME   482362.123 3733673.846 433.84
   LOCATION L0000566     VOLUME   482353.533 3733673.846 433.77
   LOCATION L0000567     VOLUME   482344.943 3733673.846 433.61
   LOCATION L0000568     VOLUME   482344.879 3733667.190 433.79
   LOCATION L0000569     VOLUME   482346.962 3733658.856 433.92
   LOCATION L0000570     VOLUME   482349.177 3733650.560 433.99
   LOCATION L0000571     VOLUME   482351.764 3733642.368 434.00
   LOCATION L0000572     VOLUME   482354.350 3733634.177 434.00
   LOCATION L0000573     VOLUME   482356.937 3733625.986 434.00
   LOCATION L0000574     VOLUME   482359.676 3733617.846 434.00
   LOCATION L0000575     VOLUME   482362.617 3733609.776 434.00
   LOCATION L0000576     VOLUME   482365.559 3733601.705 434.00
   LOCATION L0000577     VOLUME   482368.501 3733593.634 434.00
   LOCATION L0000578     VOLUME   482371.442 3733585.564 434.00
   LOCATION L0000579     VOLUME   482374.384 3733577.493 434.00
   LOCATION L0000580     VOLUME   482377.325 3733569.422 434.00
   LOCATION L0000581     VOLUME   482380.267 3733561.352 434.00
   LOCATION L0000582     VOLUME   482383.209 3733553.281 434.00
   LOCATION L0000583     VOLUME   482385.955 3733545.143 434.00
   LOCATION L0000584     VOLUME   482388.602 3733536.971 434.00
   LOCATION L0000585     VOLUME   482391.249 3733528.799 434.00
   LOCATION L0000586     VOLUME   482394.031 3733520.673 434.00
   LOCATION L0000587     VOLUME   482396.848 3733512.558 434.00
   LOCATION L0000588     VOLUME   482399.664 3733504.443 434.00
   LOCATION L0000589     VOLUME   482402.481 3733496.327 434.00
   LOCATION L0000590     VOLUME   482405.298 3733488.212 434.00
   LOCATION L0000591     VOLUME   482407.456 3733479.902 434.00
   LOCATION L0000592     VOLUME   482409.511 3733471.562 434.00
   LOCATION L0000593     VOLUME   482411.527 3733463.212 434.00
   LOCATION L0000594     VOLUME   482413.288 3733454.805 434.00
   LOCATION L0000595     VOLUME   482415.049 3733446.397 434.00
   LOCATION L0000596     VOLUME   482416.810 3733437.990 434.00
   LOCATION L0000597     VOLUME   482418.571 3733429.582 434.00
   LOCATION L0000598     VOLUME   482420.332 3733421.175 434.00
** End of LINE VOLUME Source ID = SLINE6
   LOCATION STCK1        POINT      483263.400  3733364.750      436.000
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0000300     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000301     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000302     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000303     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000304     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000305     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000306     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000307     0.000001139      3.49      4.00      3.25
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   SRCPARAM L0000308     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000309     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000310     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000311     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000312     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000313     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000314     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000315     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000316     0.000001139      3.49      4.00      3.25
   SRCPARAM L0000317     0.000001139      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0000318     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000319     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000320     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000321     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000322     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000323     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000324     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000325     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000326     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000327     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000328     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000329     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000330     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000331     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000332     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000333     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000334     0.0000003798      3.49      4.00      3.25
   SRCPARAM L0000335     0.0000003798      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0000336     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000337     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000338     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000339     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000340     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000341     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000342     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000343     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000344     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000345     0.0000002068      3.49      4.00      3.25
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   SRCPARAM L0000347     0.0000002068      3.49      4.00      3.25
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   SRCPARAM L0000349     0.0000002068      3.49      4.00      3.25
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   SRCPARAM L0000351     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000352     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000353     0.0000002068      3.49      4.00      3.25
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   SRCPARAM L0000354     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000355     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000356     0.0000002068      3.49      4.00      3.25
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   SRCPARAM L0000362     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000363     0.0000002068      3.49      4.00      3.25
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   SRCPARAM L0000365     0.0000002068      3.49      4.00      3.25
   SRCPARAM L0000366     0.0000002068      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0000367     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000368     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000369     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000370     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000371     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000372     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000373     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000374     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000375     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000376     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000377     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000378     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000379     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000380     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000381     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000382     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000383     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000384     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000385     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000386     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000387     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000388     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000389     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000390     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000391     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000392     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000393     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000394     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000395     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000396     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000397     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000398     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000399     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000400     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000401     0.00000008931      3.49      4.00      3.25
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SRCPARAM L0000402     0.00000008931      3.49      4.00      3.25
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SRCPARAM L0000422     0.00000008931      3.49      4.00      3.25
SRCPARAM L0000423     0.00000008931      3.49      4.00      3.25
SRCPARAM L0000424     0.00000008931      3.49      4.00      3.25
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SRCPARAM L0000449     0.00000008931      3.49      4.00      3.25
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SRCPARAM L0000451     0.00000008931      3.49      4.00      3.25
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SRCPARAM L0000488     0.00000008931      3.49      4.00      3.25
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SRCPARAM L0000490     0.00000008931      3.49      4.00      3.25
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SRCPARAM L0000494     0.00000008931      3.49      4.00      3.25
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SRCPARAM L0000496     0.00000008931      3.49      4.00      3.25
SRCPARAM L0000497     0.00000008931      3.49      4.00      3.25
SRCPARAM L0000498     0.00000008931      3.49      4.00      3.25
SRCPARAM L0000499     0.00000008931      3.49      4.00      3.25
SRCPARAM L0000500     0.00000008931      3.49      4.00      3.25
SRCPARAM L0000501     0.00000008931      3.49      4.00      3.25
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   SRCPARAM L0000502     0.00000008931      3.49      4.00      3.25
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   SRCPARAM L0000507     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000508     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000509     0.00000008931      3.49      4.00      3.25
   SRCPARAM L0000510     0.00000008931      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0000511     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000512     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000513     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000514     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000515     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000516     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000517     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000518     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000519     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000520     0.00000005433      3.49      4.00      3.25
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   SRCPARAM L0000522     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000523     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000524     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000525     0.00000005433      3.49      4.00      3.25
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   SRCPARAM L0000529     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000530     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000531     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000532     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000533     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000534     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000535     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000536     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000537     0.00000005433      3.49      4.00      3.25
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   SRCPARAM L0000539     0.00000005433      3.49      4.00      3.25
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   SRCPARAM L0000541     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000542     0.00000005433      3.49      4.00      3.25
   SRCPARAM L0000543     0.00000005433      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0000544     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000545     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000546     0.00000003595      3.49      4.00      3.25
   SRCPARAM L0000547     0.00000003595      3.49      4.00      3.25
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SRCPARAM L0000548     0.00000003595      3.49      4.00      3.25
SRCPARAM L0000549     0.00000003595      3.49      4.00      3.25
SRCPARAM L0000550     0.00000003595      3.49      4.00      3.25
SRCPARAM L0000551     0.00000003595      3.49      4.00      3.25
SRCPARAM L0000552     0.00000003595      3.49      4.00      3.25
SRCPARAM L0000553     0.00000003595      3.49      4.00      3.25
SRCPARAM L0000554     0.00000003595      3.49      4.00      3.25
SRCPARAM L0000555     0.00000003595      3.49      4.00      3.25
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SRCPARAM L0000562     0.00000003595      3.49      4.00      3.25
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SRCPARAM L0000582     0.00000003595      3.49      4.00      3.25
SRCPARAM L0000583     0.00000003595      3.49      4.00      3.25
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SRCPARAM L0000592     0.00000003595      3.49      4.00      3.25
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SRCPARAM L0000597     0.00000003595      3.49      4.00      3.25
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   SRCPARAM L0000598     0.00000003595      3.49      4.00      3.25
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   SRCPARAM STCK1        0.0045625001     2.430   795.310     50.25      0.12

** Building Downwash **
   BUILDHGT STCK1           12.80    12.80    12.80    12.80    12.80    12.80
   BUILDHGT STCK1           12.80    12.80    12.80    12.80    12.80    12.80
   BUILDHGT STCK1           12.80     0.00     0.00     0.00     0.00     0.00
   BUILDHGT STCK1           12.80    12.80    12.80    12.80    12.80    12.80
   BUILDHGT STCK1           12.80     0.00     0.00    12.80    12.80    12.80
   BUILDHGT STCK1           12.80     0.00     0.00     0.00     0.00     0.00

   BUILDWID STCK1          166.49   196.08   219.72   236.69   246.46   248.74
   BUILDWID STCK1          243.47   230.79   211.59   231.10   243.59   248.68
   BUILDWID STCK1          246.21     0.00     0.00     0.00     0.00     0.00
   BUILDWID STCK1          166.49   196.08   219.72   236.69   246.46   248.74
   BUILDWID STCK1          243.47     0.00     0.00   231.10   243.59   248.68
   BUILDWID STCK1          246.21     0.00     0.00     0.00     0.00     0.00

   BUILDLEN STCK1          231.10   243.59   248.68   246.21   236.26   219.13
   BUILDLEN STCK1          195.35   165.62   132.07   166.49   196.08   219.72
   BUILDLEN STCK1          236.69     0.00     0.00     0.00     0.00     0.00
   BUILDLEN STCK1          231.10   243.59   248.68   246.21   236.26   219.13
   BUILDLEN STCK1          195.35     0.00     0.00   166.49   196.08   219.72
   BUILDLEN STCK1          236.69     0.00     0.00     0.00     0.00     0.00

   XBADJ    STCK1         -206.02  -226.16  -239.43  -245.42  -243.95  -235.08
   XBADJ    STCK1         -219.06  -196.38  -167.74  -170.47  -168.25  -160.92
   XBADJ    STCK1         -148.71     0.00     0.00     0.00     0.00     0.00
   XBADJ    STCK1          -25.08   -17.43    -9.25    -0.79     7.69    15.95
   XBADJ    STCK1           23.71     0.00     0.00     3.98   -27.83   -58.80
   XBADJ    STCK1          -87.98     0.00     0.00     0.00     0.00     0.00

   YBADJ    STCK1           87.22    70.21    51.06    30.36     8.74   -13.14
   YBADJ    STCK1          -34.63   -55.06   -73.83   -90.47  -104.36  -115.09
   YBADJ    STCK1         -122.31     0.00     0.00     0.00     0.00     0.00
   YBADJ    STCK1          -87.22   -70.21   -51.06   -30.36    -8.74    13.14
   YBADJ    STCK1           34.63     0.00     0.00    90.47   104.36   115.09
   YBADJ    STCK1          122.31     0.00     0.00     0.00     0.00     0.00

   URBANSRC ALL

** Variable Emissions Type: "By Hour / Seven Days (HRDOW7)"
** Variable Emission Scenario: "Scenario 2"
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "15796-Ethanac Business Park.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PERI_V9_ADJU\PERI_v9.SFC
   PROFFILE PERI_V9_ADJU\PERI_v9.PFL
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "15796-Ethanac Business Park.AD\PE00GALL.PLT" 31
   SUMMFILE "15796-Ethanac Business Park.sum"
```

```
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            3 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 SO W320     775        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 ME W186     862       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     862       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
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 *** AERMET - VERSION  16216 ***   ***
                         ***       18:59:13

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
```

```
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses URBAN Dispersion Algorithm for the SBL for   300 Source(s),
        for Total of    1 Urban Area(s):
   Urban Population =   2189641.0 ;  Urban Roughness Length =  1.000 m
      * Urban Roughness Length of 1.0 Meter Used.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Assumes No FLAGPOLE Receptor Heights.
      * The User Specified a Pollutant Type of: DPM

 **Model Calculates PERIOD Averages Only

 **This Run Includes:    300 Source(s);       1 Source Group(s); and      46
Receptor(s)

                with:      1 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    299 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
```

```
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      4.4 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   15796-Ethanac Business Park.err

 **File for Summary of Results:   15796-Ethanac Business Park.sum

↟ *** AERMOD - VERSION 23132  ***   ***
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 *** AERMET - VERSION  16216 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                *** POINT SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     STACK   STACK
STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.
EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)
(M/SEC)  (METERS)                   VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

 STCK1            0   0.45625E-02  483263.4 3733364.8   436.0     2.43   795.31
50.25     0.12    YES     YES   NO  HRDOW7
↟ *** AERMOD - VERSION 23132  ***   ***
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 *** AERMET - VERSION  16216 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
```

INIT. SOURCE ID	URBAN SOURCE CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	AIRCRAFT SOURCE VARY BY
L0000300	0	0.11390E-05	483217.2	3733363.0	436.0	3.49	4.00	3.25	YES NO
L0000301	0	0.11390E-05	483217.2	3733354.4	436.0	3.49	4.00	3.25	YES NO
L0000302	0	0.11390E-05	483217.3	3733345.8	435.9	3.49	4.00	3.25	YES NO
L0000303	0	0.11390E-05	483217.3	3733337.3	435.9	3.49	4.00	3.25	YES NO
L0000304	0	0.11390E-05	483217.3	3733328.7	435.9	3.49	4.00	3.25	YES NO
L0000305	0	0.11390E-05	483217.3	3733320.1	435.9	3.49	4.00	3.25	YES NO
L0000306	0	0.11390E-05	483217.3	3733311.5	435.9	3.49	4.00	3.25	YES NO
L0000307	0	0.11390E-05	483217.3	3733302.9	435.9	3.49	4.00	3.25	YES NO
L0000308	0	0.11390E-05	483217.4	3733294.3	435.9	3.49	4.00	3.25	YES NO
L0000309	0	0.11390E-05	483217.4	3733285.7	435.9	3.49	4.00	3.25	YES NO
L0000310	0	0.11390E-05	483217.4	3733277.1	435.9	3.49	4.00	3.25	YES NO
L0000311	0	0.11390E-05	483217.4	3733268.5	435.9	3.49	4.00	3.25	YES NO
L0000312	0	0.11390E-05	483217.4	3733259.9	435.9	3.49	4.00	3.25	YES NO
L0000313	0	0.11390E-05	483217.4	3733251.4	435.9	3.49	4.00	3.25	YES NO
L0000314	0	0.11390E-05	483217.4	3733242.8	435.9	3.49	4.00	3.25	YES NO
L0000315	0	0.11390E-05	483217.5	3733234.2	435.9	3.49	4.00	3.25	YES NO
L0000316	0	0.11390E-05	483217.5	3733225.6	435.9	3.49	4.00	3.25	YES NO
L0000317	0	0.11390E-05	483217.5	3733217.0	435.9	3.49	4.00	3.25	YES NO
L0000318	0	0.37980E-06	483256.0	3733363.3	436.0	3.49	4.00	3.25	YES NO
L0000319	0	0.37980E-06	483256.0	3733354.7	436.0	3.49	4.00	3.25	YES NO
L0000320	0	0.37980E-06	483256.0	3733346.1	436.0	3.49	4.00	3.25	YES NO

```
 L0000321         0   0.37980E-06  483256.0 3733337.5   436.0     3.49     4.00
3.25     YES                    NO
 L0000322         0   0.37980E-06  483256.1 3733328.9   436.0     3.49     4.00
3.25     YES                    NO
 L0000323         0   0.37980E-06  483256.1 3733320.4   436.0     3.49     4.00
3.25     YES                    NO
 L0000324         0   0.37980E-06  483256.1 3733311.8   436.0     3.49     4.00
3.25     YES                    NO
 L0000325         0   0.37980E-06  483256.1 3733303.2   436.0     3.49     4.00
3.25     YES                    NO
 L0000326         0   0.37980E-06  483256.1 3733294.6   436.0     3.49     4.00
3.25     YES                    NO
 L0000327         0   0.37980E-06  483256.1 3733286.0   436.0     3.49     4.00
3.25     YES                    NO
 L0000328         0   0.37980E-06  483256.1 3733277.4   436.0     3.49     4.00
3.25     YES                    NO
 L0000329         0   0.37980E-06  483256.2 3733268.8   436.0     3.49     4.00
3.25     YES                    NO
 L0000330         0   0.37980E-06  483256.2 3733260.2   436.0     3.49     4.00
3.25     YES                    NO
 L0000331         0   0.37980E-06  483256.2 3733251.6   436.0     3.49     4.00
3.25     YES                    NO
 L0000332         0   0.37980E-06  483256.2 3733243.0   436.0     3.49     4.00
3.25     YES                    NO
 L0000333         0   0.37980E-06  483256.2 3733234.5   436.0     3.49     4.00
3.25     YES                    NO
 L0000334         0   0.37980E-06  483256.2 3733225.9   436.0     3.49     4.00
3.25     YES                    NO
 L0000335         0   0.37980E-06  483256.3 3733217.3   436.0     3.49     4.00
3.25     YES                    NO
 L0000336         0   0.20680E-06  483266.0 3733401.7   436.0     3.49     4.00
3.25     YES                    NO
 L0000337         0   0.20680E-06  483257.4 3733401.8   436.0     3.49     4.00
3.25     YES                    NO
 L0000338         0   0.20680E-06  483248.8 3733402.0   436.0     3.49     4.00
3.25     YES                    NO
 L0000339         0   0.20680E-06  483241.9 3733400.5   436.0     3.49     4.00
3.25     YES                    NO
↑ *** AERMOD - VERSION 23132  ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                  *** VOLUME SOURCE DATA ***
```

SOURCE ID	NUMBER PART. SCALAR CATS.	EMISSION RATE (GRAMS/SEC) VARY BY	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	AIRCRAFT
L0000340	0	0.20680E-06	483241.8	3733391.9	436.0	3.49	4.00	3.25	YES	NO
L0000341	0	0.20680E-06	483241.7	3733383.3	436.0	3.49	4.00	3.25	YES	NO
L0000342	0	0.20680E-06	483241.6	3733374.7	436.0	3.49	4.00	3.25	YES	NO
L0000343	0	0.20680E-06	483241.4	3733366.1	436.0	3.49	4.00	3.25	YES	NO
L0000344	0	0.20680E-06	483241.3	3733357.5	436.0	3.49	4.00	3.25	YES	NO
L0000345	0	0.20680E-06	483241.2	3733348.9	436.0	3.49	4.00	3.25	YES	NO
L0000346	0	0.20680E-06	483241.1	3733340.3	436.0	3.49	4.00	3.25	YES	NO
L0000347	0	0.20680E-06	483241.0	3733331.7	436.0	3.49	4.00	3.25	YES	NO
L0000348	0	0.20680E-06	483240.8	3733323.2	436.0	3.49	4.00	3.25	YES	NO
L0000349	0	0.20680E-06	483240.6	3733314.6	436.0	3.49	4.00	3.25	YES	NO
L0000350	0	0.20680E-06	483240.2	3733306.0	436.0	3.49	4.00	3.25	YES	NO
L0000351	0	0.20680E-06	483239.9	3733297.4	436.0	3.49	4.00	3.25	YES	NO
L0000352	0	0.20680E-06	483239.5	3733288.8	436.0	3.49	4.00	3.25	YES	NO
L0000353	0	0.20680E-06	483239.2	3733280.2	436.0	3.49	4.00	3.25	YES	NO
L0000354	0	0.20680E-06	483238.9	3733271.7	436.0	3.49	4.00	3.25	YES	NO
L0000355	0	0.20680E-06	483238.8	3733263.1	436.0	3.49	4.00	3.25	YES	NO
L0000356	0	0.20680E-06	483238.8	3733254.5	436.0	3.49	4.00	3.25	YES	NO
L0000357	0	0.20680E-06	483238.7	3733245.9	436.0	3.49	4.00	3.25	YES	NO
L0000358	0	0.20680E-06	483238.7	3733237.3	436.0	3.49	4.00	3.25	YES	NO
L0000359	0	0.20680E-06	483238.6	3733228.7	436.0	3.49	4.00	3.25	YES	NO
L0000360	0	0.20680E-06	483238.6	3733220.1	436.0	3.49	4.00			

3.25   YES   NO
 L0000361   0   0.20680E-06 483238.6 3733211.5   436.0   3.49   4.00
3.25   YES   NO
 L0000362   0   0.20680E-06 483238.6 3733202.9   436.0   3.49   4.00
3.25   YES   NO
 L0000363   0   0.20680E-06 483238.7 3733194.3   436.0   3.49   4.00
3.25   YES   NO
 L0000364   0   0.20680E-06 483238.7 3733185.8   436.0   3.49   4.00
3.25   YES   NO
 L0000365   0   0.20680E-06 483238.8 3733177.2   436.0   3.49   4.00
3.25   YES   NO
 L0000366   0   0.20680E-06 483238.8 3733168.6   436.0   3.49   4.00
3.25   YES   NO
 L0000367   0   0.89310E-07 483284.6 3733149.6   436.0   3.49   4.00
3.25   YES   NO
 L0000368   0   0.89310E-07 483284.5 3733158.2   436.0   3.49   4.00
3.25   YES   NO
 L0000369   0   0.89310E-07 483284.3 3733166.8   436.0   3.49   4.00
3.25   YES   NO
 L0000370   0   0.89310E-07 483284.2 3733175.4   436.0   3.49   4.00
3.25   YES   NO
 L0000371   0   0.89310E-07 483284.0 3733184.0   436.0   3.49   4.00
3.25   YES   NO
 L0000372   0   0.89310E-07 483283.9 3733192.6   436.0   3.49   4.00
3.25   YES   NO
 L0000373   0   0.89310E-07 483283.7 3733201.2   436.0   3.49   4.00
3.25   YES   NO
 L0000374   0   0.89310E-07 483283.6 3733209.8   436.0   3.49   4.00
3.25   YES   NO
 L0000375   0   0.89310E-07 483283.4 3733218.4   436.0   3.49   4.00
3.25   YES   NO
 L0000376   0   0.89310E-07 483283.3 3733226.9   436.0   3.49   4.00
3.25   YES   NO
 L0000377   0   0.89310E-07 483283.1 3733235.5   436.0   3.49   4.00
3.25   YES   NO
 L0000378   0   0.89310E-07 483283.0 3733244.1   436.0   3.49   4.00
3.25   YES   NO
 L0000379   0   0.89310E-07 483282.9 3733252.7   436.0   3.49   4.00
3.25   YES   NO

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                                                    *** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. SCALAR CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ	URBAN SOURCE	EMISSION RATE VARY BY	AIRCRAFT
L0000380	0	0.89310E-07	483282.7	3733261.3	436.0	3.49	4.00	3.25	YES	NO	
L0000381	0	0.89310E-07	483282.6	3733269.9	436.0	3.49	4.00	3.25	YES	NO	
L0000382	0	0.89310E-07	483282.4	3733278.5	436.0	3.49	4.00	3.25	YES	NO	
L0000383	0	0.89310E-07	483282.3	3733287.1	436.0	3.49	4.00	3.25	YES	NO	
L0000384	0	0.89310E-07	483282.1	3733295.7	436.0	3.49	4.00	3.25	YES	NO	
L0000385	0	0.89310E-07	483282.0	3733304.2	436.0	3.49	4.00	3.25	YES	NO	
L0000386	0	0.89310E-07	483281.8	3733312.8	436.0	3.49	4.00	3.25	YES	NO	
L0000387	0	0.89310E-07	483281.7	3733321.4	436.0	3.49	4.00	3.25	YES	NO	
L0000388	0	0.89310E-07	483281.5	3733330.0	436.0	3.49	4.00	3.25	YES	NO	
L0000389	0	0.89310E-07	483281.4	3733338.6	436.0	3.49	4.00	3.25	YES	NO	
L0000390	0	0.89310E-07	483281.3	3733347.2	436.0	3.49	4.00	3.25	YES	NO	
L0000391	0	0.89310E-07	483281.1	3733355.8	436.0	3.49	4.00	3.25	YES	NO	
L0000392	0	0.89310E-07	483281.0	3733364.4	436.0	3.49	4.00	3.25	YES	NO	
L0000393	0	0.89310E-07	483280.8	3733372.9	436.0	3.49	4.00	3.25	YES	NO	
L0000394	0	0.89310E-07	483280.7	3733381.5	436.0	3.49	4.00	3.25	YES	NO	
L0000395	0	0.89310E-07	483280.5	3733390.1	436.0	3.49	4.00	3.25	YES	NO	
L0000396	0	0.89310E-07	483280.4	3733398.7	436.0	3.49	4.00	3.25	YES	NO	
L0000397	0	0.89310E-07	483280.4	3733407.3	436.0	3.49	4.00	3.25	YES	NO	
L0000398	0	0.89310E-07	483280.4	3733415.9	436.0	3.49	4.00	3.25	YES	NO	
L0000399	0	0.89310E-07	483280.4	3733424.5	436.0	3.49	4.00	3.25	YES	NO	

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 L0000400         0   0.89310E-07  483280.4 3733433.1   436.0     3.49     4.00
3.25     YES                    NO
 L0000401         0   0.89310E-07  483280.4 3733441.7   436.0     3.49     4.00
3.25     YES                    NO
 L0000402         0   0.89310E-07  483280.4 3733450.3   436.0     3.49     4.00
3.25     YES                    NO
 L0000403         0   0.89310E-07  483280.4 3733458.8   436.0     3.49     4.00
3.25     YES                    NO
 L0000404         0   0.89310E-07  483280.4 3733467.4   436.0     3.49     4.00
3.25     YES                    NO
 L0000405         0   0.89310E-07  483280.4 3733476.0   436.0     3.49     4.00
3.25     YES                    NO
 L0000406         0   0.89310E-07  483280.3 3733484.6   436.0     3.49     4.00
3.25     YES                    NO
 L0000407         0   0.89310E-07  483280.3 3733493.2   436.0     3.49     4.00
3.25     YES                    NO
 L0000408         0   0.89310E-07  483280.3 3733501.8   436.0     3.49     4.00
3.25     YES                    NO
 L0000409         0   0.89310E-07  483280.3 3733510.4   436.0     3.49     4.00
3.25     YES                    NO
 L0000410         0   0.89310E-07  483280.3 3733519.0   436.0     3.49     4.00
3.25     YES                    NO
 L0000411         0   0.89310E-07  483280.3 3733527.6   436.0     3.49     4.00
3.25     YES                    NO
 L0000412         0   0.89310E-07  483280.2 3733536.2   436.0     3.49     4.00
3.25     YES                    NO
 L0000413         0   0.89310E-07  483280.2 3733544.7   436.0     3.49     4.00
3.25     YES                    NO
 L0000414         0   0.89310E-07  483280.3 3733553.3   436.0     3.49     4.00
3.25     YES                    NO
 L0000415         0   0.89310E-07  483280.4 3733561.9   436.0     3.49     4.00
3.25     YES                    NO
 L0000416         0   0.89310E-07  483280.5 3733570.5   436.0     3.49     4.00
3.25     YES                    NO
 L0000417         0   0.89310E-07  483280.5 3733579.1   436.0     3.49     4.00
3.25     YES                    NO
 L0000418         0   0.89310E-07  483281.1 3733587.7   436.0     3.49     4.00
3.25     YES                    NO
 L0000419         0   0.89310E-07  483281.7 3733596.2   436.0     3.49     4.00
3.25     YES                    NO
 *** AERMOD - VERSION 23132  ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ	URBAN SOURCE	EMISSION RATE SCALAR VARY BY	AIRCRAFT
L0000420	0	0.89310E-07	483282.2	3733604.8	436.0	3.49	4.00	3.25	YES	NO	
L0000421	0	0.89310E-07	483282.6	3733613.4	436.0	3.49	4.00	3.25	YES	NO	
L0000422	0	0.89310E-07	483282.9	3733622.0	436.0	3.49	4.00	3.25	YES	NO	
L0000423	0	0.89310E-07	483282.9	3733630.6	436.0	3.49	4.00	3.25	YES	NO	
L0000424	0	0.89310E-07	483282.7	3733639.2	436.0	3.49	4.00	3.25	YES	NO	
L0000425	0	0.89310E-07	483282.5	3733647.7	436.0	3.49	4.00	3.25	YES	NO	
L0000426	0	0.89310E-07	483282.4	3733656.3	436.0	3.49	4.00	3.25	YES	NO	
L0000427	0	0.89310E-07	483282.0	3733664.9	436.0	3.49	4.00	3.25	YES	NO	
L0000428	0	0.89310E-07	483279.4	3733671.3	436.0	3.49	4.00	3.25	YES	NO	
L0000429	0	0.89310E-07	483270.8	3733671.2	436.0	3.49	4.00	3.25	YES	NO	
L0000430	0	0.89310E-07	483262.2	3733671.2	436.0	3.49	4.00	3.25	YES	NO	
L0000431	0	0.89310E-07	483253.7	3733671.2	436.0	3.49	4.00	3.25	YES	NO	
L0000432	0	0.89310E-07	483245.1	3733671.2	436.0	3.49	4.00	3.25	YES	NO	
L0000433	0	0.89310E-07	483236.5	3733671.2	436.0	3.49	4.00	3.25	YES	NO	
L0000434	0	0.89310E-07	483227.9	3733671.2	436.0	3.49	4.00	3.25	YES	NO	
L0000435	0	0.89310E-07	483219.3	3733671.2	436.0	3.49	4.00	3.25	YES	NO	
L0000436	0	0.89310E-07	483210.7	3733671.2	436.0	3.49	4.00	3.25	YES	NO	
L0000437	0	0.89310E-07	483202.1	3733671.2	436.0	3.49	4.00	3.25	YES	NO	
L0000438	0	0.89310E-07	483193.5	3733671.1	436.0	3.49	4.00	3.25	YES	NO	
L0000439	0	0.89310E-07	483184.9	3733671.1	436.0	3.49	4.00				

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3.25     YES                    NO
 L0000440         0   0.89310E-07  483176.3 3733671.1   436.0     3.49     4.00
3.25     YES                    NO
 L0000441         0   0.89310E-07  483167.8 3733671.1   436.0     3.49     4.00
3.25     YES                    NO
 L0000442         0   0.89310E-07  483159.2 3733671.1   436.0     3.49     4.00
3.25     YES                    NO
 L0000443         0   0.89310E-07  483150.6 3733671.1   435.7     3.49     4.00
3.25     YES                    NO
 L0000444         0   0.89310E-07  483142.0 3733671.1   435.4     3.49     4.00
3.25     YES                    NO
 L0000445         0   0.89310E-07  483133.4 3733671.1   435.1     3.49     4.00
3.25     YES                    NO
 L0000446         0   0.89310E-07  483124.8 3733671.1   435.0     3.49     4.00
3.25     YES                    NO
 L0000447         0   0.89310E-07  483116.2 3733671.1   435.0     3.49     4.00
3.25     YES                    NO
 L0000448         0   0.89310E-07  483107.6 3733671.1   435.0     3.49     4.00
3.25     YES                    NO
 L0000449         0   0.89310E-07  483099.0 3733671.2   435.0     3.49     4.00
3.25     YES                    NO
 L0000450         0   0.89310E-07  483090.4 3733671.2   435.0     3.49     4.00
3.25     YES                    NO
 L0000451         0   0.89310E-07  483081.9 3733671.3   435.0     3.49     4.00
3.25     YES                    NO
 L0000452         0   0.89310E-07  483073.3 3733671.3   435.0     3.49     4.00
3.25     YES                    NO
 L0000453         0   0.89310E-07  483064.7 3733671.4   435.0     3.49     4.00
3.25     YES                    NO
 L0000454         0   0.89310E-07  483056.1 3733671.4   435.0     3.49     4.00
3.25     YES                    NO
 L0000455         0   0.89310E-07  483047.5 3733671.4   435.0     3.49     4.00
3.25     YES                    NO
 L0000456         0   0.89310E-07  483038.9 3733671.5   435.0     3.49     4.00
3.25     YES                    NO
 L0000457         0   0.89310E-07  483030.3 3733671.5   435.0     3.49     4.00
3.25     YES                    NO
 L0000458         0   0.89310E-07  483021.7 3733671.5   435.0     3.49     4.00
3.25     YES                    NO
 L0000459         0   0.89310E-07  483013.1 3733671.6   435.0     3.49     4.00
3.25     YES                    NO
↟ *** AERMOD - VERSION 23132  ***   ***
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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. SCALAR CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	AIRCRAFT EMISSION RATE VARY BY
L0000460	0	0.89310E-07	483004.5	3733671.6	435.0	3.49	4.00	3.25	YES	NO
L0000461	0	0.89310E-07	482996.0	3733671.7	435.0	3.49	4.00	3.25	YES	NO
L0000462	0	0.89310E-07	482987.4	3733671.7	435.0	3.49	4.00	3.25	YES	NO
L0000463	0	0.89310E-07	482978.8	3733671.7	435.0	3.49	4.00	3.25	YES	NO
L0000464	0	0.89310E-07	482970.2	3733671.8	435.0	3.49	4.00	3.25	YES	NO
L0000465	0	0.89310E-07	482961.6	3733671.8	435.0	3.49	4.00	3.25	YES	NO
L0000466	0	0.89310E-07	482953.0	3733671.9	435.0	3.49	4.00	3.25	YES	NO
L0000467	0	0.89310E-07	482944.4	3733672.0	435.0	3.49	4.00	3.25	YES	NO
L0000468	0	0.89310E-07	482935.8	3733672.2	435.0	3.49	4.00	3.25	YES	NO
L0000469	0	0.89310E-07	482927.2	3733672.3	435.0	3.49	4.00	3.25	YES	NO
L0000470	0	0.89310E-07	482918.7	3733672.4	435.0	3.49	4.00	3.25	YES	NO
L0000471	0	0.89310E-07	482910.1	3733672.5	435.0	3.49	4.00	3.25	YES	NO
L0000472	0	0.89310E-07	482901.5	3733672.7	435.0	3.49	4.00	3.25	YES	NO
L0000473	0	0.89310E-07	482892.9	3733672.8	435.0	3.49	4.00	3.25	YES	NO
L0000474	0	0.89310E-07	482884.3	3733672.7	435.0	3.49	4.00	3.25	YES	NO
L0000475	0	0.89310E-07	482875.7	3733672.3	435.0	3.49	4.00	3.25	YES	NO
L0000476	0	0.89310E-07	482867.1	3733672.0	435.0	3.49	4.00	3.25	YES	NO
L0000477	0	0.89310E-07	482858.6	3733671.6	435.0	3.49	4.00	3.25	YES	NO
L0000478	0	0.89310E-07	482850.0	3733671.1	435.0	3.49	4.00	3.25	YES	NO

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 L0000479         0   0.89310E-07  482841.4 3733670.6   435.0     3.49     4.00
3.25     YES                    NO
 L0000480         0   0.89310E-07  482832.8 3733670.1   435.0     3.49     4.00
3.25     YES                    NO
 L0000481         0   0.89310E-07  482824.2 3733669.7   435.0     3.49     4.00
3.25     YES                    NO
 L0000482         0   0.89310E-07  482815.7 3733669.3   435.0     3.49     4.00
3.25     YES                    NO
 L0000483         0   0.89310E-07  482807.1 3733669.3   435.0     3.49     4.00
3.25     YES                    NO
 L0000484         0   0.89310E-07  482798.5 3733669.3   434.9     3.49     4.00
3.25     YES                    NO
 L0000485         0   0.89310E-07  482789.9 3733669.2   434.7     3.49     4.00
3.25     YES                    NO
 L0000486         0   0.89310E-07  482781.3 3733669.2   434.4     3.49     4.00
3.25     YES                    NO
 L0000487         0   0.89310E-07  482772.7 3733669.2   434.2     3.49     4.00
3.25     YES                    NO
 L0000488         0   0.89310E-07  482764.1 3733669.3   434.1     3.49     4.00
3.25     YES                    NO
 L0000489         0   0.89310E-07  482755.5 3733669.6   434.1     3.49     4.00
3.25     YES                    NO
 L0000490         0   0.89310E-07  482747.0 3733669.9   434.0     3.49     4.00
3.25     YES                    NO
 L0000491         0   0.89310E-07  482738.4 3733670.2   434.0     3.49     4.00
3.25     YES                    NO
 L0000492         0   0.89310E-07  482729.8 3733670.5   434.0     3.49     4.00
3.25     YES                    NO
 L0000493         0   0.89310E-07  482721.2 3733670.7   434.0     3.49     4.00
3.25     YES                    NO
 L0000494         0   0.89310E-07  482712.6 3733671.0   434.0     3.49     4.00
3.25     YES                    NO
 L0000495         0   0.89310E-07  482704.0 3733671.2   434.0     3.49     4.00
3.25     YES                    NO
 L0000496         0   0.89310E-07  482695.4 3733671.4   434.0     3.49     4.00
3.25     YES                    NO
 L0000497         0   0.89310E-07  482686.9 3733671.6   434.0     3.49     4.00
3.25     YES                    NO
 L0000498         0   0.89310E-07  482678.3 3733671.8   434.0     3.49     4.00
3.25     YES                    NO
 L0000499         0   0.89310E-07  482669.7 3733671.9   434.0     3.49     4.00
3.25     YES                    NO
 *** AERMOD - VERSION 23132  ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY	AIRCRAFT
L0000500	0	0.89310E-07	482661.1	3733671.9	434.0	3.49	4.00	3.25	YES	NO	
L0000501	0	0.89310E-07	482652.5	3733672.0	434.0	3.49	4.00	3.25	YES	NO	
L0000502	0	0.89310E-07	482643.9	3733672.0	434.0	3.49	4.00	3.25	YES	NO	
L0000503	0	0.89310E-07	482635.3	3733672.1	434.0	3.49	4.00	3.25	YES	NO	
L0000504	0	0.89310E-07	482626.7	3733672.1	434.0	3.49	4.00	3.25	YES	NO	
L0000505	0	0.89310E-07	482618.1	3733672.0	434.0	3.49	4.00	3.25	YES	NO	
L0000506	0	0.89310E-07	482609.6	3733671.7	434.0	3.49	4.00	3.25	YES	NO	
L0000507	0	0.89310E-07	482601.0	3733671.4	434.0	3.49	4.00	3.25	YES	NO	
L0000508	0	0.89310E-07	482592.4	3733671.1	434.0	3.49	4.00	3.25	YES	NO	
L0000509	0	0.89310E-07	482583.8	3733670.8	434.0	3.49	4.00	3.25	YES	NO	
L0000510	0	0.89310E-07	482575.2	3733670.5	434.0	3.49	4.00	3.25	YES	NO	
L0000511	0	0.54330E-07	482561.8	3733684.3	434.0	3.49	4.00	3.25	YES	NO	
L0000512	0	0.54330E-07	482559.5	3733692.5	434.0	3.49	4.00	3.25	YES	NO	
L0000513	0	0.54330E-07	482557.2	3733700.8	434.0	3.49	4.00	3.25	YES	NO	
L0000514	0	0.54330E-07	482554.9	3733709.1	434.0	3.49	4.00	3.25	YES	NO	
L0000515	0	0.54330E-07	482552.3	3733717.3	434.0	3.49	4.00	3.25	YES	NO	
L0000516	0	0.54330E-07	482549.6	3733725.4	434.0	3.49	4.00	3.25	YES	NO	
L0000517	0	0.54330E-07	482546.9	3733733.6	434.0	3.49	4.00	3.25	YES	NO	
L0000518	0	0.54330E-07	482544.2	3733741.7	434.0	3.49	4.00				

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3.25     YES                    NO
 L0000519         0   0.54330E-07  482541.4 3733749.8   434.0     3.49     4.00
3.25     YES                    NO
 L0000520         0   0.54330E-07  482538.4 3733757.9   434.0     3.49     4.00
3.25     YES                    NO
 L0000521         0   0.54330E-07  482535.4 3733766.0   434.0     3.49     4.00
3.25     YES                    NO
 L0000522         0   0.54330E-07  482532.5 3733774.0   434.0     3.49     4.00
3.25     YES                    NO
 L0000523         0   0.54330E-07  482529.5 3733782.1   434.0     3.49     4.00
3.25     YES                    NO
 L0000524         0   0.54330E-07  482526.6 3733790.2   434.0     3.49     4.00
3.25     YES                    NO
 L0000525         0   0.54330E-07  482523.9 3733798.3   434.0     3.49     4.00
3.25     YES                    NO
 L0000526         0   0.54330E-07  482521.2 3733806.5   434.0     3.49     4.00
3.25     YES                    NO
 L0000527         0   0.54330E-07  482518.5 3733814.6   434.0     3.49     4.00
3.25     YES                    NO
 L0000528         0   0.54330E-07  482515.8 3733822.8   434.0     3.49     4.00
3.25     YES                    NO
 L0000529         0   0.54330E-07  482513.2 3733831.0   434.0     3.49     4.00
3.25     YES                    NO
 L0000530         0   0.54330E-07  482510.5 3733839.1   434.0     3.49     4.00
3.25     YES                    NO
 L0000531         0   0.54330E-07  482507.8 3733847.3   434.0     3.49     4.00
3.25     YES                    NO
 L0000532         0   0.54330E-07  482504.8 3733855.3   434.0     3.49     4.00
3.25     YES                    NO
 L0000533         0   0.54330E-07  482501.9 3733863.4   434.0     3.49     4.00
3.25     YES                    NO
 L0000534         0   0.54330E-07  482499.8 3733871.7   434.0     3.49     4.00
3.25     YES                    NO
 L0000535         0   0.54330E-07  482498.1 3733880.1   434.0     3.49     4.00
3.25     YES                    NO
 L0000536         0   0.54330E-07  482496.3 3733888.5   433.9     3.49     4.00
3.25     YES                    NO
 L0000537         0   0.54330E-07  482494.5 3733896.9   433.9     3.49     4.00
3.25     YES                    NO
 L0000538         0   0.54330E-07  482492.8 3733905.4   433.8     3.49     4.00
3.25     YES                    NO
 L0000539         0   0.54330E-07  482491.5 3733913.9   433.7     3.49     4.00
3.25     YES                    NO
 *** AERMOD - VERSION 23132  ***   ***
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER EMISSION RATE PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	AIRCRAFT EMISSION RATE SCALAR VARY BY
L0000540	0	0.54330E-07	482490.1	3733922.3	433.7	3.49	4.00	3.25	YES	NO
L0000541	0	0.54330E-07	482488.8	3733930.8	433.6	3.49	4.00	3.25	YES	NO
L0000542	0	0.54330E-07	482487.5	3733939.3	433.6	3.49	4.00	3.25	YES	NO
L0000543	0	0.54330E-07	482486.1	3733947.8	433.5	3.49	4.00	3.25	YES	NO
L0000544	0	0.35950E-07	482542.5	3733672.2	434.0	3.49	4.00	3.25	YES	NO
L0000545	0	0.35950E-07	482533.9	3733672.4	434.0	3.49	4.00	3.25	YES	NO
L0000546	0	0.35950E-07	482525.3	3733672.5	434.0	3.49	4.00	3.25	YES	NO
L0000547	0	0.35950E-07	482516.7	3733672.6	434.0	3.49	4.00	3.25	YES	NO
L0000548	0	0.35950E-07	482508.1	3733672.7	434.0	3.49	4.00	3.25	YES	NO
L0000549	0	0.35950E-07	482499.6	3733672.8	434.0	3.49	4.00	3.25	YES	NO
L0000550	0	0.35950E-07	482491.0	3733672.9	434.0	3.49	4.00	3.25	YES	NO
L0000551	0	0.35950E-07	482482.4	3733673.0	434.0	3.49	4.00	3.25	YES	NO
L0000552	0	0.35950E-07	482473.8	3733673.1	434.0	3.49	4.00	3.25	YES	NO
L0000553	0	0.35950E-07	482465.2	3733673.2	434.0	3.49	4.00	3.25	YES	NO
L0000554	0	0.35950E-07	482456.6	3733673.3	434.0	3.49	4.00	3.25	YES	NO
L0000555	0	0.35950E-07	482448.0	3733673.4	434.0	3.49	4.00	3.25	YES	NO
L0000556	0	0.35950E-07	482439.4	3733673.5	434.0	3.49	4.00	3.25	YES	NO
L0000557	0	0.35950E-07	482430.8	3733673.6	434.0	3.49	4.00	3.25	YES	NO

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 L0000558         0   0.35950E-07  482422.3 3733673.7   434.0     3.49     4.00
3.25     YES                   NO
 L0000559         0   0.35950E-07  482413.7 3733673.8   434.0     3.49     4.00
3.25     YES                   NO
 L0000560         0   0.35950E-07  482405.1 3733673.8   434.0     3.49     4.00
3.25     YES                   NO
 L0000561         0   0.35950E-07  482396.5 3733673.8   434.0     3.49     4.00
3.25     YES                   NO
 L0000562         0   0.35950E-07  482387.9 3733673.8   434.0     3.49     4.00
3.25     YES                   NO
 L0000563         0   0.35950E-07  482379.3 3733673.8   434.0     3.49     4.00
3.25     YES                   NO
 L0000564         0   0.35950E-07  482370.7 3733673.8   433.9     3.49     4.00
3.25     YES                   NO
 L0000565         0   0.35950E-07  482362.1 3733673.8   433.8     3.49     4.00
3.25     YES                   NO
 L0000566         0   0.35950E-07  482353.5 3733673.8   433.8     3.49     4.00
3.25     YES                   NO
 L0000567         0   0.35950E-07  482344.9 3733673.8   433.6     3.49     4.00
3.25     YES                   NO
 L0000568         0   0.35950E-07  482344.9 3733667.2   433.8     3.49     4.00
3.25     YES                   NO
 L0000569         0   0.35950E-07  482347.0 3733658.9   433.9     3.49     4.00
3.25     YES                   NO
 L0000570         0   0.35950E-07  482349.2 3733650.6   434.0     3.49     4.00
3.25     YES                   NO
 L0000571         0   0.35950E-07  482351.8 3733642.4   434.0     3.49     4.00
3.25     YES                   NO
 L0000572         0   0.35950E-07  482354.3 3733634.2   434.0     3.49     4.00
3.25     YES                   NO
 L0000573         0   0.35950E-07  482356.9 3733626.0   434.0     3.49     4.00
3.25     YES                   NO
 L0000574         0   0.35950E-07  482359.7 3733617.8   434.0     3.49     4.00
3.25     YES                   NO
 L0000575         0   0.35950E-07  482362.6 3733609.8   434.0     3.49     4.00
3.25     YES                   NO
 L0000576         0   0.35950E-07  482365.6 3733601.7   434.0     3.49     4.00
3.25     YES                   NO
 L0000577         0   0.35950E-07  482368.5 3733593.6   434.0     3.49     4.00
3.25     YES                   NO
 L0000578         0   0.35950E-07  482371.4 3733585.6   434.0     3.49     4.00
3.25     YES                   NO
 L0000579         0   0.35950E-07  482374.4 3733577.5   434.0     3.49     4.00
3.25     YES                   NO
 *** AERMOD - VERSION 23132  ***   ***
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05/02/24
 *** AERMET - VERSION  16216 ***   ***
                        ***       18:59:13
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER EMISSION RATE PART. SCALAR CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE BY	AIRCRAFT EMISSION RATE VARY
L0000580	0	0.35950E-07	482377.3	3733569.4	434.0	3.49	4.00	3.25	YES	NO
L0000581	0	0.35950E-07	482380.3	3733561.4	434.0	3.49	4.00	3.25	YES	NO
L0000582	0	0.35950E-07	482383.2	3733553.3	434.0	3.49	4.00	3.25	YES	NO
L0000583	0	0.35950E-07	482386.0	3733545.1	434.0	3.49	4.00	3.25	YES	NO
L0000584	0	0.35950E-07	482388.6	3733537.0	434.0	3.49	4.00	3.25	YES	NO
L0000585	0	0.35950E-07	482391.2	3733528.8	434.0	3.49	4.00	3.25	YES	NO
L0000586	0	0.35950E-07	482394.0	3733520.7	434.0	3.49	4.00	3.25	YES	NO
L0000587	0	0.35950E-07	482396.8	3733512.6	434.0	3.49	4.00	3.25	YES	NO
L0000588	0	0.35950E-07	482399.7	3733504.4	434.0	3.49	4.00	3.25	YES	NO
L0000589	0	0.35950E-07	482402.5	3733496.3	434.0	3.49	4.00	3.25	YES	NO
L0000590	0	0.35950E-07	482405.3	3733488.2	434.0	3.49	4.00	3.25	YES	NO
L0000591	0	0.35950E-07	482407.5	3733479.9	434.0	3.49	4.00	3.25	YES	NO
L0000592	0	0.35950E-07	482409.5	3733471.6	434.0	3.49	4.00	3.25	YES	NO
L0000593	0	0.35950E-07	482411.5	3733463.2	434.0	3.49	4.00	3.25	YES	NO
L0000594	0	0.35950E-07	482413.3	3733454.8	434.0	3.49	4.00	3.25	YES	NO
L0000595	0	0.35950E-07	482415.0	3733446.4	434.0	3.49	4.00	3.25	YES	NO
L0000596	0	0.35950E-07	482416.8	3733438.0	434.0	3.49	4.00	3.25	YES	NO
L0000597	0	0.35950E-07	482418.6	3733429.6	434.0	3.49	4.00			

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	L0000300 , L0000301 , L0000302 , L0000303 , L0000304 , L0000305 , L0000306 , L0000307 ,
	L0000308 , L0000309 , L0000310 , L0000311 , L0000312 , L0000313 , L0000314 , L0000315 ,
	L0000316 , L0000317 , L0000318 , L0000319 , L0000320 , L0000321 , L0000322 , L0000323 ,
	L0000324 , L0000325 , L0000326 , L0000327 , L0000328 , L0000329 , L0000330 , L0000331 ,
	L0000332 , L0000333 , L0000334 , L0000335 , L0000336 , L0000337 , L0000338 , L0000339 ,
	L0000340 , L0000341 , L0000342 , L0000343 , L0000344 , L0000345 , L0000346 , L0000347 ,
	L0000348 , L0000349 , L0000350 , L0000351 , L0000352 , L0000353 , L0000354 , L0000355 ,
	L0000356 , L0000357 , L0000358 , L0000359 , L0000360 , L0000361 , L0000362 , L0000363 ,
	L0000364 , L0000365 , L0000366 , L0000367 , L0000368 , L0000369 , L0000370 , L0000371 ,
	L0000372 , L0000373 , L0000374 , L0000375 , L0000376 , L0000377 , L0000378 , L0000379 ,

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L0000385    , L0000386    , L0000387    ,

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L0000393    , L0000394    , L0000395    ,

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L0000457    , L0000458    , L0000459    ,
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 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                                        *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID   SOURCE IDs
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L0000593    , L0000594    , L0000595    ,

             L0000596    , L0000597    , L0000598    , STCK1       ,
↟ *** AERMOD - VERSION 23132  ***   ***
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 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                                        *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP   SOURCE IDs
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              2189641.   L0000300   , L0000301   , L0000302   , L0000303   ,
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L0000457   , L0000458   , L0000459   ,

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP   SOURCE IDs
  --------   ---------   ----------

             L0000460   , L0000461   , L0000462   , L0000463   , L0000464   ,
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L0000593    , L0000594    , L0000595    ,

             L0000596    , L0000597    , L0000598    , STCK1       ,
 *** AERMOD - VERSION 23132  ***   ***
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05/02/24
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                       ***       18:59:13
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: STCK1

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	12.8,	166.5,	231.1,	-206.0,	87.2,	2	12.8,	196.1,	243.6,	-226.2,	70.2,
3	12.8,	219.7,	248.7,	-239.4,	51.1,	4	12.8,	236.7,	246.2,	-245.4,	30.4,
5	12.8,	246.5,	236.3,	-244.0,	8.7,	6	12.8,	248.7,	219.1,	-235.1,	-13.1,
7	12.8,	243.5,	195.4,	-219.1,	-34.6,	8	12.8,	230.8,	165.6,	-196.4,	-55.1,
9	12.8,	211.6,	132.1,	-167.7,	-73.8,	10	12.8,	231.1,	166.5,	-170.5,	-90.5,
11	12.8,	243.6,	196.1,	-168.2,	-104.4,	12	12.8,	248.7,	219.7,	-160.9,	-115.1,
13	12.8,	246.2,	236.7,	-148.7,	-122.3,	14	0.0,	0.0,	0.0,	0.0,	0.0,
15	0.0,	0.0,	0.0,	0.0,	0.0,	16	0.0,	0.0,	0.0,	0.0,	0.0,
17	0.0,	0.0,	0.0,	0.0,	0.0,	18	0.0,	0.0,	0.0,	0.0,	0.0,
19	12.8,	166.5,	231.1,	-25.1,	-87.2,	20	12.8,	196.1,	243.6,	-17.4,	-70.2,
21	12.8,	219.7,	248.7,	-9.2,	-51.1,	22	12.8,	236.7,	246.2,	-0.8,	-30.4,
23	12.8,	246.5,	236.3,	7.7,	-8.7,	24	12.8,	248.7,	219.1,	16.0,	13.1,
25	12.8,	243.5,	195.4,	23.7,	34.6,	26	0.0,	0.0,	0.0,	0.0,	0.0,
27	0.0,	0.0,	0.0,	0.0,	0.0,	28	12.8,	231.1,	166.5,	4.0,	90.5,
29	12.8,	243.6,	196.1,	-27.8,	104.4,	30	12.8,	248.7,	219.7,	-58.8,	115.1,
31	12.8,	246.2,	236.7,	-88.0,	122.3,	32	0.0,	0.0,	0.0,	0.0,	0.0,
33	0.0,	0.0,	0.0,	0.0,	0.0,	34	0.0,	0.0,	0.0,	0.0,	0.0,
35	0.0,	0.0,	0.0,	0.0,	0.0,	36	0.0,	0.0,	0.0,	0.0,	0.0,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

 SOURCE ID = STCK1   ; SOURCE TYPE = POINT   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
                                                    DAY OF WEEK = MONDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = TUESDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = WEDNESDY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = THURSDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = FRIDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                    DAY OF WEEK = SATURDAY

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                                          *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                              (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: PERI_V9_ADJU\PERI_v9.SFC
Met Version: 16216
Profile file: PERI_V9_ADJU\PERI_v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 3171 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN

Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-7.9	0.125	-9.000	-9.000	-999.	106.	21.2	0.19	0.61	1.00	1.30	335.	9.1	282.5	5.5
10	01	01	1	02	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	142.	9.1	280.9	5.5
10	01	01	1	03	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	324.	9.1	280.4	5.5
10	01	01	1	04	-1.3	0.064	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	294.	9.1	278.8	5.5

```
 10 01 01   1 05   -3.9  0.088 -9.000 -9.000 -999.   62.     15.0  0.19   0.61
1.00    0.90  205.    9.1  278.1    5.5
 10 01 01   1 06   -1.3  0.065 -9.000 -9.000 -999.   39.     18.3  0.19   0.61
1.00    0.40    3.    9.1  277.0    5.5
 10 01 01   1 07   -8.0  0.125 -9.000 -9.000 -999.  106.     21.0  0.19   0.61
1.00    1.30   99.    9.1  277.0    5.5
 10 01 01   1 08   -3.3  0.086 -9.000 -9.000 -999.   61.     16.8  0.19   0.61
0.54    0.90  319.    9.1  278.8    5.5
 10 01 01   1 09   20.1  0.128  0.307  0.010   49.  110.     -9.0  0.19   0.61
0.33    0.90  239.    9.1  284.2    5.5
 10 01 01   1 10   56.7  0.087  0.560  0.010  107.   62.     -1.0  0.19   0.61
0.26    0.40  188.    9.1  289.2    5.5
 10 01 01   1 11   81.5  0.323  0.867  0.008  277.  441.    -35.9  0.19   0.61
0.23    2.70  310.    9.1  290.9    5.5
 10 01 01   1 12   97.1  0.281  1.058  0.008  421.  357.    -19.7  0.19   0.61
0.22    2.20  357.    9.1  293.1    5.5
 10 01 01   1 13   92.2  0.279  1.117  0.008  523.  354.    -20.4  0.19   0.61
0.22    2.20  356.    9.1  293.8    5.5
 10 01 01   1 14   77.6  0.275  1.102  0.008  595.  347.    -23.2  0.19   0.61
0.23    2.20   50.    9.1  294.2    5.5
 10 01 01   1 15   54.9  0.230  1.006  0.008  640.  266.    -19.2  0.19   0.61
0.27    1.80   53.    9.1  293.8    5.5
 10 01 01   1 16   12.3  0.206  0.613  0.008  648.  225.    -61.5  0.19   0.61
0.36    1.80   11.    9.1  292.5    5.5
 10 01 01   1 17   -3.6  0.087 -9.000 -9.000 -999.   71.     15.6  0.19   0.61
0.64    0.90  351.    9.1  290.4    5.5
 10 01 01   1 18   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  186.    9.1  287.5    5.5
 10 01 01   1 19   -3.8  0.087 -9.000 -9.000 -999.   62.     15.2  0.19   0.61
1.00    0.90  275.    9.1  285.9    5.5
 10 01 01   1 20   -1.2  0.064 -9.000 -9.000 -999.   39.     18.1  0.19   0.61
1.00    0.40  181.    9.1  285.4    5.5
 10 01 01   1 21   -7.8  0.125 -9.000 -9.000 -999.  106.     21.3  0.19   0.61
1.00    1.30  318.    9.1  284.9    5.5
 10 01 01   1 22   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  196.    9.1  283.1    5.5
 10 01 01   1 23   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61
1.00    0.90  330.    9.1  281.4    5.5
 10 01 01   1 24   -7.9  0.125 -9.000 -9.000 -999.  106.     21.2  0.19   0.61
1.00    1.30  332.    9.1  280.9    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01    5.5 0 -999.  -99.00   282.6   99.0  -99.00  -99.00
 10 01 01 01    9.1 1  335.    1.30  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
```

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                              *** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   L0000300   , L0000301
 , L0000302   , L0000303   , L0000304   ,
                   L0000305   , L0000306   , L0000307   , L0000308   , L0000309
 , L0000310   , L0000311   , L0000312   ,
                   L0000313   , L0000314   , L0000315   , L0000316   , L0000317
 , L0000318   , L0000319   , L0000320   ,
                   L0000321   , L0000322   , L0000323   , L0000324   , L0000325
 , L0000326   , L0000327   , . . .   ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                     ** CONC OF DPM   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         483206.77   3733449.91   0.00247   483197.50
3733502.14   0.00150
         483012.96   3733295.40   0.00091   482921.28
3733279.91   0.00052
         483004.17   3733358.20   0.00083   482943.05
3733222.13   0.00055
         483575.97   3733053.93   0.00032   483712.90
3733038.66   0.00020
         483326.25   3732789.92   0.00025   483181.93
3732838.68   0.00029
         483392.25   3732810.12   0.00026   482867.69
3732851.00   0.00020
         483630.15   3732851.49   0.00019   482959.63
3733603.27   0.00069
         482960.05   3733649.74   0.00122   482856.21
3733634.25   0.00086
         482816.44   3733631.32   0.00082   483094.86
3733654.35   0.00152
         483176.09   3733639.28   0.00122   483267.78
3733641.79   0.00189
         483301.69   3733642.63   0.00148   483130.87
3733648.85   0.00137

```
         483299.26    3733586.00        0.00171                      483323.11
3733603.44        0.00108
         483297.84    3733710.20        0.00072                      483365.81
3733652.19        0.00062
         483234.13    3733518.02        0.00159                      483233.32
3733502.41        0.00175
         483708.37    3733587.95        0.00020                      483367.41
3733628.17        0.00067
         483489.84    3733629.23        0.00038                      483469.20
3733603.25        0.00044
         483395.89    3733616.42        0.00059                      482349.64
3733526.99        0.00035
         482357.81    3733501.58        0.00034                      482270.38
3733723.63        0.00018
         482320.90    3733736.94        0.00023                      482354.18
3733907.26        0.00016
         482347.82    3733886.09        0.00017                      482297.60
3733821.35        0.00016
         482523.43    3734103.91        0.00013                      482584.29
3734097.50        0.00013
         484156.44    3733746.98        0.00007                      484156.60
3733885.12        0.00007
         484123.94    3733944.58        0.00007                      483969.00
3733570.22        0.00011
 *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/02/24
 *** AERMET - VERSION  16216 ***   ***
                       ***       18:59:13

                                 PAGE  21
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                      *** THE SUMMARY OF MAXIMUM PERIOD ( 43824
HRS) RESULTS ***


                                   ** CONC OF DPM      IN MICROGRAMS/M**3
              **


                        NETWORK
GROUP ID                      AVERAGE CONC               RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS       0.00247 AT (  483206.77,  3733449.91,
435.56,   435.56,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00189 AT (  483267.78,  3733641.79,
```

```
436.00,   436.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00175 AT (  483233.32,  3733502.41,
436.00,   436.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00171 AT (  483299.26,  3733586.00,
436.00,   436.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00159 AT (  483234.13,  3733518.02,
436.00,   436.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00152 AT (  483094.86,  3733654.35,
435.00,   435.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00150 AT (  483197.50,  3733502.14,
435.25,   435.25,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00148 AT (  483301.69,  3733642.63,
436.00,   436.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00137 AT (  483130.87,  3733648.85,
435.03,   435.03,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00122 AT (  483176.09,  3733639.28,
436.00,   436.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION 23132  ***   ***
C:\Users\adadabhoy\Desktop\AERMOD\15796-Ethanac Business Park\15796- ***
05/02/24
 *** AERMET - VERSION  16216 ***   ***
                       ***        18:59:13

                                  PAGE  22
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            5 Warning Message(s)
 A Total of         2028 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of          978 Calm Hours Identified

 A Total of         1050 Missing Hours Identified (  2.40 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***
```

```
   ********   WARNING MESSAGES   ********
 SO W320     775        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 ME W186     862       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
     0.50
 ME W187     862       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:
  14010101
 MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:
2 year gap

   ***********************************
   *** AERMOD Finishes Successfully ***
   ***********************************
```

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APPENDIX 2.4:

RISK CALCULATIONS

Construction Risk

Receptor No.	Age Bin	DPM Conc. ($\mu g/m^3$)	Exposure Frequency (days)	Exposure Duration (years)	Inhalation Rate (L/kg-day)	Inhalation Absorption Factor	Averaging Time (years)	FAH	ASF	Cancer Risk				Non-Cancer Risk								
										URF	CPF	Dose	Risk (per million)	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	REPRO	EYES
1	0 to 2	0.00091	250	0.91	1090	1	70	1.00	10	3.0E-04	1.1E+00	6.8E-07	0.09	5.0E+00	1.4E-03	1.8E-04						
												Total	0.09			1.8E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2	0 to 2	0.00051	250	0.91	1090	1	70	1.00	10	3.0E-04	1.1E+00	3.8E-07	0.05	5.0E+00	1.4E-03	1.0E-04						
												Total	0.05			1.0E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3	0 to 2	0.00035	250	0.91	1090	1	70	1.00	10	3.0E-04	1.1E+00	2.6E-07	0.04	5.0E+00	1.4E-03	7.0E-05						
												Total	0.04			7.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4	0 to 2	0.00089	250	0.91	1090	1	70	1.00	10	3.0E-04	1.1E+00	6.6E-07	0.09	5.0E+00	1.4E-03	1.8E-04						
												Total	0.09			1.8E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
5 (MEIR)	0 to 2	0.00166	250	0.91	1090	1	70	1.00	10	3.0E-04	1.1E+00	1.2E-06	0.17	5.0E+00	1.4E-03	3.3E-04						
												Total	0.17			3.3E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
6 (MEIW)	16 to 41	0.00860	250	0.91	230	1	70	1.00	1	3.0E-04	1.1E+00	1.4E-06	0.02	5.0E+00	1.4E-03	1.7E-03						
												Total	0.02			1.7E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
7 (MEISC)	4 to 13	0.00008	180	0.91	572	1	70	1.00	3	3.0E-04	1.1E+00	2.3E-08	0.00	5.0E+00	1.4E-03	1.6E-05						
												Total	0.00			1.6E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Operational Risk - Scenario 2

Receptor No.	Age Bin	DPM Conc. (µg/m^3)	Exposure Frequency (days)	Exposure Duration (years)	Inhalation Rate (L/kg-day)	Inhalation Absorption Factor	Averaging Time (years)	FAH	ASF	Cancer Risk				Non-Cancer Risk								
										URF	CPF	Dose	Risk (per million)	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	REPRO	EYES
1 (MEIR)	-0.25 to 0	0.00067	350	0.25	361	1	70	0.85	10	3.0E-04	1.1E+00	2.3E-07	0.01	5.0E+00	1.4E-03	1.3E-04						
	0 to 2	0.00067	350	2	1090	1	70	0.85	10	3.0E-04	1.1E+00	7.0E-07	0.18	5.0E+00	1.4E-03	1.3E-04						
	2 to 16	0.00067	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	3.7E-07	0.17	5.0E+00	1.4E-03	1.3E-04						
	16 to 30	0.00067	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	1.7E-07	0.03	5.0E+00	1.4E-03	1.3E-04						
												Total	0.38			5.4E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2	-0.25 to 0	0.00038	350	0.25	361	1	70	0.85	10	3.0E-04	1.1E+00	1.3E-07	0.00	5.0E+00	1.4E-03	7.6E-05						
	0 to 2	0.00038	350	2	1090	1	70	0.85	10	3.0E-04	1.1E+00	4.0E-07	0.10	5.0E+00	1.4E-03	7.6E-05						
	2 to 16	0.00038	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	2.1E-07	0.09	5.0E+00	1.4E-03	7.6E-05						
	16 to 30	0.00038	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	9.5E-08	0.01	5.0E+00	1.4E-03	7.6E-05						
												Total	0.21			3.0E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3	-0.25 to 0	0.00032	350	0.25	361	1	70	0.85	10	3.0E-04	1.1E+00	1.1E-07	0.00	5.0E+00	1.4E-03	6.4E-05						
	0 to 2	0.00032	350	2	1090	1	70	0.85	10	3.0E-04	1.1E+00	3.3E-07	0.09	5.0E+00	1.4E-03	6.4E-05						
	2 to 16	0.00032	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	1.8E-07	0.08	5.0E+00	1.4E-03	6.4E-05						
	16 to 30	0.00032	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	8.0E-08	0.01	5.0E+00	1.4E-03	6.4E-05						
												Total	0.18			2.6E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4	-0.25 to 0	0.00025	350	0.25	361	1	70	0.85	10	3.0E-04	1.1E+00	8.7E-08	0.00	5.0E+00	1.4E-03	5.0E-05						
	0 to 2	0.00025	350	2	1090	1	70	0.85	10	3.0E-04	1.1E+00	2.6E-07	0.07	5.0E+00	1.4E-03	5.0E-05						
	2 to 16	0.00025	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	1.4E-07	0.06	5.0E+00	1.4E-03	5.0E-05						
	16 to 30	0.00025	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	6.3E-08	0.01	5.0E+00	1.4E-03	5.0E-05						
												Total	0.14			2.0E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
5	-0.25 to 0	0.00052	350	0.25	361	1	70	0.85	10	3.0E-04	1.1E+00	1.8E-07	0.01	5.0E+00	1.4E-03	1.0E-04						
	0 to 2	0.00052	350	2	1090	1	70	0.85	10	3.0E-04	1.1E+00	5.4E-07	0.14	5.0E+00	1.4E-03	1.0E-04						
	2 to 16	0.00052	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	2.9E-07	0.13	5.0E+00	1.4E-03	1.0E-04						
	16 to 30	0.00052	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	1.3E-07	0.02	5.0E+00	1.4E-03	1.0E-04						
												Total	0.29			4.2E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
6 (MEIW)	16 to 41	0.00247	250	25	230	1	70	1.00	1	3.0E-04	1.1E+00	3.9E-07	0.15	5.0E+00	1.4E-03	4.9E-04						
												Total	0.15			4.9E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
7 (MEISC)	4 to 13	0.00007	180	9.00	572	1	70	1.00	3	3.0E-04	1.1E+00	2.0E-08	0.01	5.0E+00	1.4E-03	1.4E-05						
												Total	0.01			1.4E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Combined Construction and Operational Risk - Scenario 2

Receptor No.	Age Bin	DPM Conc. (µg/m^3)	Exposure Frequency (days)	Exposure Duration (years)	Inhalation Rate (L/kg-day)	Inhalation Absorption Factor	Averaging Time (years)	FAH	ASF	Cancer Risk				Non-Cancer Risk							
										URF	CPF	Dose	Risk (per million)	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	REPRO	EYES
1	0 to 2	0.00091	250	0.91	1090	1	70	1.00	10	3.0E-04	1.1E+00	6.8E-07	0.09	5.0E+00	1.4E-03	1.8E-04						
	0 to 2	0.00067	350	1.09	1090	1	70	0.85	10	3.0E-04	1.1E+00	7.0E-07	0.10	5.0E+00	1.4E-03	1.3E-04						
	2 to 16	0.00067	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	3.7E-07	0.17	5.0E+00	1.4E-03	1.3E-04						
	16 to 30	0.00067	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	1.7E-07	0.03	5.0E+00	1.4E-03	1.3E-04						
												Total	0.38			5.8E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2	0 to 2	0.00051	250	0.91	1090	1	70	1.00	10	3.0E-04	1.1E+00	3.8E-07	0.05	5.0E+00	1.4E-03	1.0E-04						
	0 to 2	0.00038	350	1.09	1090	1	70	0.85	10	3.0E-04	1.1E+00	4.0E-07	0.06	5.0E+00	1.4E-03	7.6E-05						
	2 to 16	0.00038	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	2.1E-07	0.09	5.0E+00	1.4E-03	7.6E-05						
	16 to 30	0.00038	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	9.5E-08	0.01	5.0E+00	1.4E-03	7.6E-05						
												Total	0.22			3.3E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3	0 to 2	0.00035	250	0.91	1090	1	70	1.00	10	3.0E-04	1.1E+00	2.6E-07	0.04	5.0E+00	1.4E-03	7.0E-05						
	0 to 2	0.00032	350	1.09	1090	1	70	0.85	10	3.0E-04	1.1E+00	3.3E-07	0.05	5.0E+00	1.4E-03	6.4E-05						
	2 to 16	0.00032	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	1.8E-07	0.08	5.0E+00	1.4E-03	6.4E-05						
	16 to 30	0.00032	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	8.0E-08	0.01	5.0E+00	1.4E-03	6.4E-05						
												Total	0.17			2.6E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4	0 to 2	0.00089	250	0.91	1090	1	70	1.00	10	3.0E-04	1.1E+00	6.6E-07	0.09	5.0E+00	1.4E-03	1.8E-04						
	0 to 2	0.00025	350	1.09	1090	1	70	0.85	10	3.0E-04	1.1E+00	2.6E-07	0.04	5.0E+00	1.4E-03	5.0E-05						
	2 to 16	0.00025	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	1.4E-07	0.06	5.0E+00	1.4E-03	5.0E-05						
	16 to 30	0.00025	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	6.3E-08	0.01	5.0E+00	1.4E-03	5.0E-05						
												Total	0.20			3.3E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
5 (MEIR)	0 to 2	0.00166	250	0.91	1090	1	70	1.00	10	3.0E-04	1.1E+00	1.2E-06	0.17	5.0E+00	1.4E-03	3.3E-04						
	0 to 2	0.00052	350	1.09	1090	1	70	0.85	10	3.0E-04	1.1E+00	5.4E-07	0.08	5.0E+00	1.4E-03	1.0E-04						
	2 to 16	0.00052	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	2.9E-07	0.13	5.0E+00	1.4E-03	1.0E-04						
	16 to 30	0.00052	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	1.3E-07	0.02	5.0E+00	1.4E-03	1.0E-04						
												Total	0.39			6.4E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
6	16 to 41	0.00860	250	0.91	230	1	70	1.00	1	3.0E-04	1.1E+00	1.4E-06	0.02	5.0E+00	1.4E-03	1.7E-03						
	16 to 41	0.00247	250	24.09	230	1	70	1.00	1	3.0E-04	1.1E+00	3.9E-07	0.14	5.0E+00	1.4E-03	4.9E-04						
												Total	0.16			2.2E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
7	4 to 13	0.00008	180	0.91	572	1	70	1.00	3	3.0E-04	1.1E+00	2.3E-08	0.00	5.0E+00	1.4E-03	1.6E-05						
	4 to 13	0.00007	180	8.09	572	1	70	1.00	3	3.0E-04	1.1E+00	2.0E-08	0.01	5.0E+00	1.4E-03	1.4E-05						
												Total	0.01			3.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

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APPENDIX 2.5:

MODELED RECEPTORS

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Appendix B: Habitat Assessment and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis

February 27, 2024

KIMLEY-HORN
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SUBJECT: **Biological Resources Assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis for the Proposed Ethanac Business Park Project Located in the City of Menifee, Riverside County, California**

Introduction

This report contains the findings of ELMT Consulting's (ELMT) biological resources assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) consistency analysis for the proposed Ethanac Business Park Project (project site or site) and offsite infrastructure improvements located in the City of Menifee, Riverside County, California. This report addresses the project's onsite and offsite impacts. The field investigation was conducted by biologist Rachael A. Lyons on January 23, 2024, to document baseline conditions and assess the potential for special-status[1] plant and wildlife species to occur within the proposed project site that could pose a constraint to implementation of the proposed project. Special attention was given to the suitability of the on-site habitat to support burrowing owl (*Athene cunicularia*) and several other special-status species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) and other electronic databases as potentially occurring on or within the general vicinity of the project site.

In addition, the Western Riverside County Regional Conservation Authority (RCA) MSHCP Information Map was queried to determine if the MSHCP identifies any potential survey requirements for the project. Further, the project site was reviewed against the MSHCP to determine if the site is located within any MSHCP areas including Criteria Cells (core habitat and wildlife movement corridors) or areas proposed for conservation. Based on the RCA MSHCP Information Map query and review of the MSHCP, it was determined that the project site is located within the Sun City/Menifee Valley Area Plan of the MSHCP, but is not located within any designated Criteria Cells or conservations areas. Further, it was determined that the site is only located within the MSHCP designated survey area for burrowing owl.

Project Location

The project site is generally located east and north of Interstate 215 and south and west of State Route 74, and north of Newport Road in the City of Menifee, Riverside County, California. The site is depicted on the Romoland quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map

[1] As used in this report, "special-status" refers to plant and wildlife species that are federally, State, and MSHCP listed, proposed, or candidates; plant species that have been designated with a California Native Plant Society Rare Plant Rank; wildlife species that are designated by the CDFW as fully protected, species of special concern, or watch list species; and specially protected natural vegetation communities as designated by the CDFW.

series in Section 15 of Township 5 South, Range 3 West. Specifically, the project site is bounded to the west by commercial and undeveloped vacant land with Trumble Road beyond, to the south by undeveloped vacant land and McLaughlin Road beyond, to the east by Sherman Road, and to the north by commercial land with Ethanac Road beyond within Assessor's Parcel Numbers 331-110-023, -038, and -039. Offsite infrastructure improvements will occur along Sherman Road, Ethanac Road, and Trumble Road. Refer to Exhibits 1-3 in Attachment A.

Project Description

The project applicant proposes to construct a new 264,710 square foot warehouse consisting of 254,710 square feet of warehouse area and 10,000 square feet of office area, with 168 automobile parking spaces and 47 truck trailer parking stalls along with approximately 58,864 square feet of landscaping.

Offsite infrastructure improvements will include the following:

- Sherman Road Street Improvements: improve Sherman Road along project frontage plus 12 feet east of centerline (minimum) from the concrete lined storm drain located south of the project site to just north of Ethanac Road.
    - Additionally, a recycled water line, project sewer main, electrical and communication lines, and potable water and fire hydrants are proposed along Sherman Road.
- Ethanace Road and Sherman Road Intersection: add westbound left turn lane and eastbound left turn lane.
- Trumble Road: improvements to a portion of Trumble Road immediate north of the concrete lined storm drain south of the project site, and the installation of a potential offsite-storm drain system

Methodology

Literature Review

The first step in determining if a project is consistent with the above listed sections of the MSHCP is to conduct a literature review and records search for special-status biological resources potentially occurring on or within the vicinity of the project site. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project were determined through a query of the CDFWs CNDDB Rarefind 5, the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, United States Fish and Wildlife Service (USFWS) species listings, and species covered within the MSHCP and associated technical documents.

All available reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the project site were reviewed to understand existing site conditions and note the extent of any disturbances that have occurred on the project site that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-special-status biological resources, as well as the following resources:

- Environmental Protection Agency (EPA) Water Program "My Waters" data layers
- Google Earth Pro historic aerial imagery (1985-2023);

- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Soil Survey[2];
- USFWS Critical Habitat designations for Threatened and Endangered Species;
- USFWS National Wetlands Inventory (NWI);
- Stephen's Kangaroo Rat Habitat Conservation Plan;
- Western Riverside County Regional Conservation Authority (RCA) MSHCP Information Map; and
- 2006 Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area.

The literature review provided a baseline from which to inventory the biological resources potentially occurring on the project site. The CNDDB database was used, in conjunction with ArcGIS software, to locate the nearest recorded occurrences of special-status species and determine the distance from the project.

Field Investigation

Following the literature review, biologists Rachael A. Lyons initially inventoried and evaluated the condition of the habitat within the project site and offsite infrastructure improvement areas on January 23, 2024. Plant communities identified on aerial photographs during the literature review were verified by walking meandering transects through the plant communities and along boundaries between plant communities. In addition, aerial photography was reviewed prior to the site investigation to locate potential natural corridors and linkages that may support the movement of wildlife through the area. These areas identified on aerial photography were then walked during the field survey.

All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded. Plant species observed during the field survey were identified by visual characteristics and morphology in the field. Unusual and less familiar plant species were photographed during the field survey and identified in the laboratory using taxonomical guides. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site plant communities, and presence of potential jurisdictional drainage and/or wetland features were noted.

Soil Series Assessment

On-site and adjoining soils were researched prior to the field survey using the USDA NRCS Soil Survey for Western Riverside Area, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes that the project site has undergone.

[2] A soil series is defined as a group of soils with similar profiles developed from similar parent materials under comparable climatic and vegetation conditions. These profiles include major horizons with similar thickness, arrangement, and other important characteristics, which may promote favorable conditions for certain biological resources.

Plant Communities

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photography. The plant communities were delineated on an aerial photograph, classified in accordance with those described in the MSHCP, and then digitized into GIS Arcview. The Arcview application was used to compute the area of each plant community in acres.

Plants

Common plant species observed during the field survey were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unusual and less-familiar plants were photographed in the field and identified in the laboratory using taxonomic guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual (Hickman 2012). In this report, scientific names are provided immediately following common names of plant species (first reference only).

Wildlife

Wildlife species detected during field surveys by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides were used to assist with identification of wildlife species during the survey included The Sibley Field Guide to the Birds of Western North America (Sibley 2003), A Field Guide to Western Reptiles and Amphibians (Stebbins 2003), and A Field Guide to Mammals of North America (Reid 2006). Although common names of wildlife species are fairly well standardized, scientific names are provided immediately following common names in this report (first reference only).

Jurisdictional Drainages and Wetlands

Aerial photography was reviewed prior to conducting a field investigation in order to locate and inspect any potential natural drainage features, ponded areas, or water bodies that may fall under the jurisdiction of the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or CDFW. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to state and federal regulatory jurisdiction. In addition, ELMT reviewed jurisdictional waters information through examining historical aerial photographs to gain an understanding of the impact of land-use on natural drainage patterns in the area. The USFWS National Wetland Inventory (NWI) and Environmental Protection Agency (EPA) Water Program "My Waters" data layers were also reviewed to determine whether any hydrologic features and wetland areas have been documented on or within the vicinity of the project site.

Topography and Soils

The project site is relatively flat with no areas of topographic relief. On-site elevation ranges from 1,486 to 1,500 feet above mean sea level and the site slopes slightly from north to south. Based on the NRCS USDA Web Soil Survey, the project site is entirely underlain by Monserate sandy loam (0 to 5 percent slopes) Refer to Exhibit 4, *Soils*, in Attachment A. Soils on-site have been mechanically disturbed and heavily compacted from ongoing and historic land uses (i.e., grading, routine weed abatement, illegal dumping, staging and stockpiling activities, and onsite and surrounding development). Historic aerials show these activities have been ongoing since at least 1966.

Existing Site Condition

The project site occurs in an area that historically supported vacant, undeveloped land. At present, the site is bounded to the south and west by agricultural development, with residential development and Interstate 215 beyond respectively; to the north by commercial development; and to the east by Sherman Road with vacant, undeveloped land beyond. The project site supports disturbed and developed land associated with the existing sand and gravel supply yard.

Vegetation

Due to existing land uses, no native plant communities or natural communities of special concern were observed on or adjacent to the project site or offsite infrastructure improvement areas. The site consists of a mix of developed and disturbed land which has been subject to a variety of anthropogenic disturbances associated with existing land uses. These disturbances have eliminated the natural plant communities that were once present on and surrounding the project site. Refer to Attachment C, *Site Photographs*, for representative site photographs. No native plant communities will be impacted from implementation of the proposed project.

The project site supports one (1) plant community that is classified as non-native grassland. Additionally, the site supports two (2) land cover types that are classified as developed and disturbed (refer to Exhibit 5, *Vegetation*). The non-native grassland community is highly restricted to slim margins along the western, southern, and eastern boundaries of the project site adjacent to disturbed areas onsite. Plant species present within the nonnative grassland community include nonnative, invasive/weedy, ruderal, and primary successional species. These species include tree tobacco (*Nicotiana glauca*), black mustard (*Brassica nigra*), Jimson weed (*Datura stramonium*), crownbeard (*Verbesina encelioides*), canary grass (*Phalaris canariensis*), London rocket (*Sisymbrium irio*), stinknet (*Oncosiphon piluliferum*), and cheese weed (*Malva parviflora*). Additional common species present within the nonnative grassland include common sunflower (*Helianthus annus*), red-stem filaree (*Erodium cicutarium*), and wire lettuce (*Stephanomeria pauciflora*).

The majority of the project site consists of disturbed land. Soils in the disturbed areas onsite are highly compacted from ongoing vehicular traffic and stockpiling associated with onsite commercial operations. These areas are mostly barren but contain a few representative species which are also seen in the nonnative grassland onsite.

The project site also consist of developed land containing administrative offices in the northeast corner, walled stalls allocated for spoils piles along the northern boundary, and small paved areas in the middle of the site primarily for trailer parking and logistics operations. Developed areas are generally void of vegetation, with the exception of installed ornamental species. Ornamental species present within the developed areas onsite include Mexican fan palm (*Washingtonia robusta*) and sago palm (*Cycas revoluta*).

The offsite infrastructure improvement areas support both disturbed land and developed areas associated existing paved road right-of-way.

Wildlife

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected

to occur within the project site. The discussion is to be used as a general reference and is limited by the season, time of day, and weather conditions in which the field survey was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation.

Fish

The MSHCP does not identify any covered or special-status fish species as potentially occurring within the project site. Further, no fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish were observed on or within the vicinity of the site. Therefore, no fish are expected to occur and are presumed absent.

Amphibians

The MSHCP does not identify any covered or special-status amphibian species as potentially occurring within the project site. Further, no amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed on or within the vicinity of the site. Therefore, no amphibians are expected to occur.

Reptiles

The MSHCP does not identify any covered or special-status reptilian species as potentially occurring within the project site. The site provides a limited amount of habitat for reptile species adapted to a high degree of human disturbance. No reptilian species were observed onsite during the field investigation. Reptilian species that could be expected to occur onsite include common side-blotched lizard (*Uta stansburiana elegans*), western fence lizard (*Sceloporus occidentalis*), Great Basin fence lizard (*Sceloporus occidentalis longipes*), and San Diego alligator lizard (*Elgaria multicarinata webbii*).

Birds

The project site provides limited foraging habitat for bird species adapted to a high degree of human disturbance. Bird species detected during the field survey include house finch (*Haemorhous mexicanus*), Cassin's kingbird (*Tyrannus vociferans*), western meadowlark (*Sturnella neglecta*), black phoebe (*Sayornis nigricans*), red-winged blackbird (*Agelaius phoeniceus*), common raven (*Corvus corax*), killdeer (*Charadrius vociferus*), Ana's hummingbird (*Calypte anna*), yellow-rumped warbler (*Setophaga coronata*), American kestrel (*Falco sparverius*), and turkey vulture (*Cathartes aura*).

Mammals

The MSHCP does not identify any covered or special-status mammalian species as potentially occurring within the project site. The site provides limited foraging and cover habitat for mammalian species adapted to a high degree of human disturbance. Mammalian species occurring within the project site include desert cottontail (*Sylvilagus audubonii*), Botta's pocket gopher (*Thomomys bottae*), and domestic dog (*Canis familiaris*). Additional mammalian species that could be expected to occur include opossum (*Didelphis virginiana*), ground squirrel (*Otospermophilus beecheyi*), and raccoon (*Procyon lotor*).

Nesting Birds and Raptors

No active nests or birds displaying nesting behavior were observed during the field survey, which was conducted outside of breeding season. Although subjected to routine disturbance, the ornamental vegetation

found within the northeast corner of the project site, and offsite along the eastern boundary has the potential to provide suitable nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds and raptor species that could occur in the area and are adapted to urban environments. Additionally, disturbed areas within the project site have the potential to support ground nesting species such as killdeer.

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of birds, their nests or eggs). If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The project site and offsite infrastructure improvement areas have not been identified as occurring in a wildlife corridor or linkage. The proposed project will be confined to existing areas that have been heavily disturbed and are isolated from regional wildlife corridors and linkages. In addition, there are no riparian corridors, creeks, or useful patches of steppingstone habitat (natural areas) within or connecting the site to a recognized wildlife corridor or linkage. As such, implementation of the proposed project is not expected to impact wildlife movement opportunities. Therefore, impacts to wildlife corridors or linkages are not expected to occur.

Jurisdictional Areas

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge or fill materials into “waters of the United States” pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 et seq., and the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

The USFWS NWI and the USGS National Hydrography Dataset were reviewed to determine if any blueline streams or riverine resources have been documented within or immediately surrounding the project site. The NWI and USGS National Hydrography Dataset provide off-site ancillary tools to assist in jurisdictional assessments, but they are not a substitute for field investigations. NWI resources are graphic representations of potential water features that are mapped at high altitudes based on the imagery that was used. Based on this review, no aquatic resources were identified within or adjacent to the project site or and offsite

infrastructure improvement areas.

Based on the field investigation, no jurisdictional drainage and/or wetland features were observed on the project site or within the during the field investigation. Therefore, development of the project will not result in impacts to Corps, Regional Board, or CDFW jurisdiction and regulatory approvals will not be required.

It should be noted that during the field investigation, several ponded areas were observed in the disturbed areas of the project site. These ponded areas were formed following above average/recent storm events, on top of the hard compacted soils. The project site continues to be subject to routine anthropogenic disturbances that have heavily compacted the soils onsite which has been routinely used for sand/gravel, and vehicle storage with a thin layer of loose gravel in portions of the site. Although these features exhibit hydrology (immediately following storm events), the features are created from heavily compacted soils, lack hydric soils, and the features do not support any vegetation. From this review of historic aerial photographs and observations during the field investigations, it can be concluded that there is no indication of vernal pools or suitable fairy shrimp habitat occurring within the proposed project site. As a result, these ponded areas would not be considered jurisdictional by the Crops, Regional Board, or CDFW because they are temporary, do not support any riparian/obligate vegetation, and were created from compaction of soils from anthropogenic disturbances.

Special-Status Biological Resources

The CNDDB was queried for reported locations of special-status plant and wildlife species as well as natural communities of special concern in the Romoland USGS 7.5-minute quadrangle. Only one quadrangle was used due to the heavily disturbed nature of the site, lack of native plant communities on and adjacent to the project site, and the proximity of the site to quadrangle boundaries and regional topography. A search of published records within this quadrangle was conducted using the CNDDB Rarefind 5 online software and the CDFW BIOS database and the CNPS Inventory of Rare and Endangered Plants of California that supplied information regarding the distribution and habitats of vascular plants in the vicinity of the project site. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified seventeen (17) special-status plant species, fifty-one (51) special-status wildlife species, and two (2) special-status plant communities as having potential to occur within the Romoland quadrangle. Special-status plant and wildlife species were evaluated for their potential to occur within the project site based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity are presented in *Table C-1: Potentially Occurring Special-Status Biological Resources*, provided in Attachment D. Refer to Table C-1 for a determination regarding the potential occurrence of special-status plant and wildlife species within the project site.

Special-Status Plants

According to the CNDDB and CNPS, seventeen (17) special-status plant species have been recorded in the Romoland quadrangle (refer to Attachment C). No special-status plant species observed on the project site or within the offsite areas during the field investigation. Based on habitat requirements for specific species

and the availability and quality of on and offsite habitats, it was determined that paniculate tarplant (*Deinandra paniculata*) has a low potential to occur. None of the other special-status plant species have potential to occur on-site due to the lack of suitable habitat and routine on-site disturbances and all are presumed absent.

Paniculate tarplant is not federally or state listed as threatened or endangered. It is designated as CNPS Rare Plant Rank 4.2. CNPS Rare Plant Rank 4 species are of limited distribution or infrequent throughout a broader area in California, with 4.2 species considered to be moderately threatened. No mitigation obligations specific to these species are expected.

Special-Status Wildlife

According to the CNDDB, fifty-one (51) special-status wildlife species have been reported in the Romoland quadrangle (refer to Attachment C). The only special-status wildlife species observed on the project site during the field investigation was Cooper's hawk (*Accipiter cooperii*). Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the project site has a moderate potential to support sharp-shinned hawk (*Accipiter striatus*); and low potential to support and California horned lark (*Eremophila alpestris actia*). It was further determined that the project site does not have potential to support any of the other special-status wildlife species known to occur in the vicinity of the site and all are presumed absent.

A pre-construction nesting bird clearance survey shall be conducted prior to ground disturbance. With implementation of the pre-construction nesting bird clearance survey, impacts to special-status avian species will be less than significant and no mitigation will be required.

Special-Status Plant Communities

The CNDDB lists two (2) special-status habitats as being identified within the Romoland quadrangle: Southern Coast Live Oak Riparian Forest and Southern Cottonwood Willow Riparian Forest. Neither of these CDFW special-status plant communities occur within the boundaries of the project site.

Critical Habitat

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the United States Fish and Wildlife Service (USFWS) regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Permit from the Corps). If there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project site is not located with federally designated Critical Habitat (refer to Exhibit 6, *Critical Habitat*, in Attachment A). The nearest designated Critical Habitat is located approximately 2 miles northwest for spreading navarretia (*Navarretia fossalis*) and thread-leaved brodiaea (*Brodiaea filifolia*). Therefore, the loss or adverse modification of Critical Habitat will not occur as a result of the proposed project and consultation with the USFWS will not be required for implementation of the proposed project.

Western Riverside County MSHCP

The project site and offsite areas are located within the Sun City/Menifee Valley Area Plan of the MSHCP but are not located within any designated Criteria Cells (refer to Exhibit 7, *MSHCP Criteria Area*, in Attachment A). Additionally, the project site and portions of the offsite areas are located within the designated survey area for burrowing owl, and Narrow Endemic Plant Species Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichoronis. as depicted in Figures 6-4 within Section 6.3.2 of the MSHCP.

- Amphibian — Not in an amphibian survey area
- Burrowing Owls — Burrowing Owl Survey Area
- Criteria Area Species — Not in a criteria area species survey area
- Mammals — Not in a mammal survey area
- Narrow Endemic Plants — Narrow Endemic Plant survey area (species listed above)

The City of Menifee is a permittee under the MSHCP and, while the project is not specifically identified as a Covered Activity in the MSHCP, under Section 7.3.1, *Public and Private Development Consistent with MSHCP Criteria*, public and private development within the Criteria Area that is determined to be consistent with the Criteria is considered a Covered Activity. As such, to achieve coverage, the project must be consistent with the following policies of the MSHCP:

Since the City is a permittee under the MSHCP and, while the project is not specifically identified as a Covered Activity under Section 7.1 of the MSHCP, public and private development that are outside of Criteria Areas and Public/Quasi-Public (PQP) Lands are permitted under the MSHCP, subject to consistency with MSHCP policies that apply to area outside of Criteria Areas. As such, to achieve coverage, the project must be consistent with the following policies of the MSHCP:

- The policies for the protection of species associated with Riparian/Riverine areas and vernal pools as set forth in Section 6.1.2 of the MSHCP;
- The policies for the protection of Narrow Endemic Plant Species as set forth in Section 6.1.3 of the MSHCP;
- Guidelines pertaining to the Urban/Wildlands Interface intended to address indirect effects associated with locating Development in proximity to the MSHCP Conservation Area as detailed in Section 6.1.4 of the MSHCP;
- The requirements for conducting additional surveys as set forth in Section 6.3.2 of the MSHCP; and
- A Habitat Evaluation Acquisition Negotiation Strategy (HANS) as set forth in Section 6.1.1 of the MSHCP.

Riparian/Riverine Areas and Vernal Pools

The MSHCP requires that an assessment be completed if impacts to riparian/riverine areas and vernal pools could occur from construction of the proposed project. According to the MSHCP, the documentation for the assessment shall include mapping and a description of the functions and values of the mapped areas with respect to the species listed in Section 6.1.2 of the MSHCP, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*.

Riparian/Riverine Areas

As identified in Section 6.1.2 of the MSHCP, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools,* riparian/riverine areas are defined as areas dominated by trees, shrubs, persistent emergent plants, or emergent mosses and lichens which occur close to or are dependent upon nearby freshwater, or areas with freshwater flowing during all or a portion of the year. Conservation of these areas is intended to protect habitat that is essential to a number of listed or special-status water-dependent fish, amphibian, avian, and plant species. If impacts to riparian/riverine habitat cannot be avoided, a Determination of Biologically Equivalent or Superior Preservation (DBESP) must be developed to address the replacement of lost functions of habitats in regard to the listed species. This assessment is independent from considerations given to "waters of the U.S." and "waters of the State" under the CWA and the California Fish and Game Code.

No jurisdictional drainages, riparian/riverine and/or wetland features were observed within the project site during the field investigation. Development of the proposed project will not result in impacts to riparian/riverine habitats and a DBESP will not be required for the loss of riparian/riverine habitat from development of the proposed project.

Vernal Pools

One of the factors for determining the suitability of the habitat for fairy shrimp would be demonstrable evidence of seasonal ponding in an area of topographic depression that is not subject to flowing waters. These astatic pools are typically characterized as vernal pools. More specifically, vernal pools are seasonal wetlands that occur in depression areas without a continual source of water. They have wetland indicators of all 3 parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetland indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season. The determination that an area exhibits vernal pool characteristics and the definition of the watershed supporting vernal pool hydrology is made on a case-by-case basis. Such determinations should be considered the length of time the areas exhibit upland and wetland characteristics and the manner in which the area fits into the overall ecological system as a wetland. The seasonal hydrology of vernal pools provides for a unique environment, which supports plants and invertebrates specifically adapted to a regime of winter inundation, followed by an extended period when the pool soils are dry.

Vernal pools are seasonally inundated, ponded areas that only form in regions where specialized soil and climatic conditions exist. During fall and winter rains typical of Mediterranean climates, water collects in shallow depressions where downward percolation of water is prevented by the presence of a hard pan or clay pan layer (duripan) below the soil surface. Later in the spring when rains decrease and the weather

warms, the water evaporates and the pools generally disappear by May. The shallow depressions remain relatively dry until late fall and early winter with the advent of greater precipitation and cooler temperatures. Vernal pools provide unusual "flood and drought" habitat conditions to which certain plant and wildlife species have specifically adapted as well as invertebrate species such as fairy shrimp.

The MSHCP lists two general classes of soils known to be associated with listed and special-status plant species; clay soils and Traver-Domino Willow association soils. The specific clay soils known to be associated with listed and special-status species within the MSHCP plan area include Bosanko, Auld, Altamont, and Porterville series soils, whereas Traver-Domino Willows association includes saline-alkali soils largely located along floodplain areas of the San Jacinto River and Salt Creek. Without the appropriate soils to create the impermeable restrictive layer, none of the special-status plant or wildlife species associated with vernal pools can occur on the project site. None of these soils have been documented within the project site.

It should be noted that during the field investigation, several ponded areas were observed in the disturbed areas of the project site. No ponded areas were observed within the offsite areas. These ponded areas were formed following the recent storm events, on top of the hard compacted soils. The project site has been subject to routine anthropogenic disturbances that have heavily compacted the soils onsite which has been routinely used for sand/gravel, and vehicle storage with a thin layer of loose gravel in portions of the site. Further, the drainage patterns currently occurring on the project site do not follow hydrologic regimes needed to support vernal pools.

The historical grading of the site for the sand and gravel storage activities would likely have eliminated potential fairy shrimp cysts in the soil, if they historically occurred onsite. Further, the loose gravel onsite, and routine disturbances would likely preclude fairy shrimp from occurring onsite. The underlying soils (Monserate sandy loam) are not hydric, and are not soils listed under the MSHCP they typically are found in association with vernal pools or vernal pool type habitat. As a result of rough grading and continual compacting of the soils from existing land disturbances, no known vernal pool type soils or restrictive layers, potential road ruts and/or human made depressions on the site, are not expected to support suitable habitat for fairy shrimp, and fairy shrimp surveys are warranted.

Although these features exhibit hydrology, the features are compacted and lack hydric soils, and the features do not support any vegetation. Therefore, the features are not MSHCP vernal pools because they lack two of the parameters needed to be considered as a depressional wetland.

Fairy Shrimp Habitat

Riverside fairy shrimp (*Streptocephalus woottoni*)

Riverside fairy shrimp are restricted to deep seasonal vernal pools, vernal pool like ephemeral ponds, and stock ponds and other human modified depressions. They prefer warm-water pools that have low to moderate dissolved solids, are less predictable, and remained filled for extended periods of time. Basins that support Riverside fairy shrimp are typically dry a portion of the year, but usually are filled by late fall, winter, or spring rains, and may persist through May. Known habitat occurs within annual grasslands, which may be interspersed through chaparral or coastal sage scrub vegetation. In Riverside County, Riverside fairy shrimp have been found in pools formed over the following soils: Murrieta stony clay loams, Las

Posas series, Wyman clay loam, and Willows soils.

The project site and offsite areas are underlain by Monserate sandy loam (0 to 5 percent slopes). The aforementioned soils that Riverside fairy shrimp are typically associated with in Riverside County do not occur onsite. Soils on-site have been mechanically disturbed and heavily compacted from historic land uses. Due to the lack of soils associated with Riverside fairy shrimp, and continuous onsite anthropogenic disturbances the site was determined not to provide suitable habitat for Riverside fairy shrimp.

Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*)

Santa Rosa Plateau fairy shrimp are restricted to seasonal southern basalt flow vernal pools with cool clear to milky waters that are moderately predictable and remain filled for extended periods of time and are known only from vernal pool on the Santa Rosa Plateau. Although ponding was observed onsite, the project site is not located within the known area where Santa Rosa Plateau fairy shrimp have been documented. Therefore, due to the last of southern basalt flow vernal pool and location of the project site in proximity to the known locations of Santa Rosa Plateau fairy shrimp, it was determined that the project site and offsite areas do not provide suitable habitat for Santa Rosa Plateau fairy shrimp.

Vernal pool fairy shrimp (*Branchinecta lynchi*)

Vernal pool fairy shrimp are restricted to seasonal vernal pools (vernal pools and alkali vernal pools) and prefer cool-water pools that have low to moderate dissolved solids, are unpredictable, and often short lived. The vernal pool fairy shrimp is known from four locations in Western Riverside County MSHCP Plan Area: Skunk Hollow, the Santa Rosa Plateau, Salt Creek, and the vicinity of the Pechanga Indian Reservation. Although ponding was observed at the time of the investigation, the project site is not located within or adjacent to the four known populations of vernal pool fairy shrimp.

Soils on-site have been mechanically disturbed and heavily compacted from historic land uses, and the underlying soils (Monserate sandy loam) are not soils listed under the MSHCP that are typically are found in association with vernal pools or vernal pool type habitat. Further, due to continuous onsite anthropogenic disturbances the project site and offsite areas were determined not to provide suitable habitat for vernal pool fairy shrimp.

Narrow Endemic Plant Species

Section 6.1.3 of the MSHCP, *Protection of Narrow Endemic Plant Species*, states that the MSHCP database does not provide sufficient detail to determine the extent of the presence/distribution of Narrow Endemic Plant Species within the MSHCP Plan Area. Additional surveys may be needed to gather information to determine the presence/absence of these species to ensure that appropriate conservation of these species occurs. Based on the RCA MSHCP Information Map query and review of the MSHCP, it was determined that the project site is not located within the designated survey area for Narrow Endemic Plant Species. Through the field investigation, it was determined that the project site does not provide suitable habitat for any of the Narrow Endemic Plant Species listed under Section 6.1.3 of the MSHCP, and, therefore, the project is consistent with Section 6.1.3 of the MSHCP. No additional surveys or analysis is required.

Additional Survey Needs and Procedures

In accordance with Section 6.3.2 of the MSHCP, *Additional Survey Needs and Procedures*, additional

surveys may be needed for certain species in order to achieve coverage for these species. The query of the RCA MSHCP Information Map and review of the MSHCP determined that the project site is located within the designated survey area for burrowing owl as depicted in Figure 6-4 within Section 6.3.2 of the MSHCP. No other special-status wildlife species surveys were identified.

Burrowing Owl

Burrowing owl is currently designated as a California Species of Special Concern. The burrowing owl is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with level to gently sloping areas characterized by open vegetation and bare ground. The western burrowing owl (*A.c. hypugaea*), which occurs throughout the western United States including California, rarely digs its own burrows and is instead dependent upon the presence of burrowing mammals (i.e., California ground squirrels, coyotes, and badgers) whose burrows are often used for roosting and nesting. The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drainpipes, stand-pipes, and dry culverts. They also require low growth or open vegetation allowing line-of-sight observation of the surrounding habitat to forage and watch for predators. In California, the burrowing owl breeding season extends from the beginning of February through the end of August.

Under the MSHCP burrowing owl is considered an adequately conserved covered species that may still require focused surveys in certain areas as designated in Figure 6-4 of the MSHCP. The project site occurs within the MSHCP burrowing owl survey area and a habitat assessment was conducted for the species to ensure compliance with MSHCP guidelines for the species. In accordance with the MSHCP Burrowing Owl Survey Instructions (2006), survey protocol consists of two steps, Step I – Habitat Assessment and Step II – Locating Burrows and Burrowing Owls. The following section describes the methodology followed during the burrowing owl habitat assessment conducted for this project.

- Step I – Habitat Assessment: Step 1 of the MSHCP habitat assessment for burrowing owl consists of a walking survey to determine if suitable habitat is present onsite. The habitat assessment was conducted on January 23, 2024. Upon arrival at the project site, and prior to initiating the assessment survey, binoculars were used to scan all suitable habitats on and adjacent to the property, including perch locations, to establish owl presence.

  All suitable areas of the project site were surveyed on foot by walking slowly and methodically while recording/mapping areas that may represent suitable owl habitat onsite. Primary indicators of suitable burrowing owl habitat in western Riverside County include, but are not limited to, native and non-native grassland, interstitial grassland within shrub lands, shrub lands with low density shrub cover, golf courses, drainage ditches, earthen berms, unpaved airfields, pastureland, dairies, fallow fields, and agricultural use areas. Burrowing owls typically use burrows made by fossorial mammals, but they often utilize man-made structures, such as earthen berms, cement culverts, cement, asphalt, rock, wood debris piles, openings beneath cement or asphalt pavement. Burrowing owls are often found within, under, or in close proximity to man-made structures.

According to the MSHCP guidelines, if suitable habitat is present, the biologist should also walk the perimeter of the property, which consists of a 150-meter (approximately 500 feet) buffer zone around the project site boundary. If permission to access the buffer area cannot be obtained, the biologist shall not trespass, but visually inspect adjacent habitats with binoculars. In addition to surveying the entire Project Site all bordering natural habitats located immediately adjacent to the Project Site were assessed. Results from the habitat assessment indicate that suitable resources for burrowing owl are present throughout the Project Site. Accordingly, if suitable habitat is documented onsite or within adjacent habitats, both Step II, focused surveys and the 30-day preconstruction surveys are required in order to comply with the MSHCP guidelines.

- Step II – Locating Burrows and Burrowing Owls: Concurrent with the initial habitat assessment, a detailed focused burrow survey was conducted and included documentation of appropriately sized natural burrows or suitable man-made structures that may be utilized by burrowing owl - as part of the MSHCP protocol, which is described below under Part A, Focused Burrow Survey. The MSHCP protocol indicates that no more than 100 acres should be surveyed per day/per biologist.

    - Part A – Focused Burrow Survey: A systematic survey for burrows, including burrowing owl sign, was conducted by walking across all suitable habitats mapped within the project site on January 23, 2024. Pedestrian survey transects were spaced to allow 100% visual coverage of the ground surface. The distances between transect centerlines were no more than 30 meters (approximately 100 feet) apart, and owing to the terrain, often much smaller. Transect routes were also adjusted to account for topography and in general ground surface visibility. Areas providing potential habitat for burrowing owls were surveyed for suitable burrows, consisting of natural and non-natural substrates in areas with low, open vegetation. All burrows encountered were examined for shape, scat, pellets, white-wash, feathers, tracks, and prey remains. Suitable burrows/sites, including rock piles and non-natural substrates, were thoroughly examined for signs of presence.

Despite a systematic search of the project site and offsite areas, no burrowing owls or sign (i.e., pellets, feathers, castings, or whitewash) were observed during the field investigation. Most of the project site is unvegetated, which allows for minimal line-of-sight observation favored by burrowing owls. Existing onsite activities have precluded suitable burrows from establishing on the project stie. Further, the presence of tall trees and power lines immediately surrounding the project site, provide perching opportunities for large raptors (i.e., red-tailed hawk) that can prey on burrowing owls. Additionally, free-roaming domestic dogs were observed within the boundaries of the project site. Therefore, burrowing owl are presumed to be absent.

No focused surveys are recommended. Since suitable burrowing owl habitat was not found within the project site or in off-site areas to be disturbed, Part B-Focused Burrowing Owl surveys were not required. Therefore, the project is consistent with Section 6.3.2. However, out of an abundance of caution, a pre-construction burrowing owl clearance survey shall be conducted prior to ground disturbing activities.

Urban/Wildlands Interface Guidelines

Section 6.1.4 of the MSHCP, *Guidelines Pertaining to Urban/Wildlands Interface,* is intended to address indirect effects associated with development in proximity to MSHCP Conservation Areas. The

Urban/Wildlife Interface Guidelines are intended to ensure that indirect project-related impacts to the MSHCP Conservation Area, including drainage, toxics, lighting, noise, invasive plant species, barriers, and grading/land development, are avoided or minimized. The project site is not located within or immediately adjacent to any Criteria Cells, corridors, or linkages. The urban/Wildlands Interface Guidelines do not apply to this project, and, therefore, the project is consistent with Section 6.1.4 of the MSHCP.

Stephen's Kangaroo Rat Habitat Conservation Plan

Separate from the consistency review against the policies of the MSHCP, Riverside County established a boundary in 1996 for protecting the Stephens' kangaroo rat (*Dipodomys stephensi*), a federally endangered and state threatened species. The Stephens' kangaroo rat is protected under the Stephens' Kangaroo Rat Habitat Conservation Plan (County Ordinance No. 663.10; SKR HCP). As described in the MSHCP Implementation Agreement, a Section 10(a) Permit, and California Fish and Game Code Section 2081 Management Authorization were issued to the Riverside County Habitat Conservation Agency (RCHCA) for the Long-Term SKR HCP and was approved by the USFWS and CDFW in August 1990 (RCHCA 1996). Relevant terms of the SKR HCP have been incorporated into the MSHCP and its Implementation Agreement. The SKR HCP will continue to be implemented as a separate HCP; however, to provide the greatest conservation for the largest number of Covered Species, the Core Reserves established by the SKR HCP are managed as part of the MSHCP Conservation Area consistent with the SKR HCP. Actions shall not be taken as part of the implementation of the SKR HCP that will significantly affect other Covered Species. Take of Stephens' kangaroo rat outside of the boundaries but within the MSHCP area is authorized under the MSHCP and the associated permits.

SKR typically inhabit areas with sandy soils in sparsely vegetation grassland habitat. Even though the project site is located within the Mitigation Fee Area of the SKR HCP, the project site does not provide suitable habitat for SKR, and is not located within in of the SKR core habitat areas. Therefore, the applicant will only be required to pay the SKR HCP Mitigation Fee prior to development of the project site.

Conclusion

Based literature review and field survey, and existing site conditions discussed in this report, implementation of the project will have no significant impacts on federally or State listed species known to occur in the general vicinity of the project site. Additionally, the project will have no effect on designated Critical Habitat or regional wildlife corridors/linkage because none exists within the area. No jurisdictional drainage and/or wetland features were observed on the project site during the field investigation. No further surveys are recommended. With completion of the recommendations provided below, no impacts to year-round, seasonal, or special-status avian residents or special-status species will occur from implementation of the proposed project.

With completion of the recommendations provided below and payment of the SKR HCP mitigation fee and MSHCP mitigation fee, development of the project site is fully consistent with the Western Riverside County MSHCP.

Recommendations

Migratory Bird Treaty Act and Fish and Game Code Compliance

Vegetation on the project site and with the offsite areas have the potential to provide refuge cover from predators, perching sites and favorable conditions for avian nesting that could be impacted by construction activities associated with the project. Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.3, 3511, and 3513 of the California Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs). In order to protect migratory bird species, a nesting bird clearance survey should be conducted prior to any ground disturbance or vegetation removal activities that may disrupt the birds during the nesting season. Consequently, if avian nesting behaviors are disrupted, such as nest abandonment and/or loss of reproductive effort, it is considered "take" and is potentially punishable by fines and/or imprisonment.

If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a no-disturbance buffer. The size of the no-disturbance buffer will be determined by the wildlife biologist and will depend on the level of noise and/or surrounding anthropogenic disturbances, line of sight between the nest and the construction activity, type and duration of construction activity, ambient noise, species habituation, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

Burrowing Owl Pre-Construction Clearance Survey

A 30-day pre-construction burrowing owl survey shall be conducted prior to any ground disturbing activities to avoid direct take of burrowing owls, in accordance Objectives 6 of the Species Account for the Burrowing Owl included in the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

If burrowing owls are found onsite during the pre-construction clearance survey, a burrowing owl relocation plan will need to be prepared and approval by the RCA and CDFW prior to the commencement of any ground disturbing activities. The burrowing owl relocation plan shall outline recommended methods proposed to relocate the burrowing owls from the project site and provide measures that will be implemented for the maintenance, monitoring, and reporting of the relocated burrowing owls to increase chances of survivorship and better ensure compliance with CDFW guidelines. However, if no burrowing owls are observed onsite during the pre-construction clearance survey, no further surveys will be required.

Please do not hesitate to contact Tom McGill at (951) 285-6014 or tmcgill@elmtconsulting.com or Travis

McGill at (909) 816-1646 or travismcgill@elmtconsulting.com should you have any questions.

Sincerely,

Thomas J. McGill, Ph.D.
Managing Director

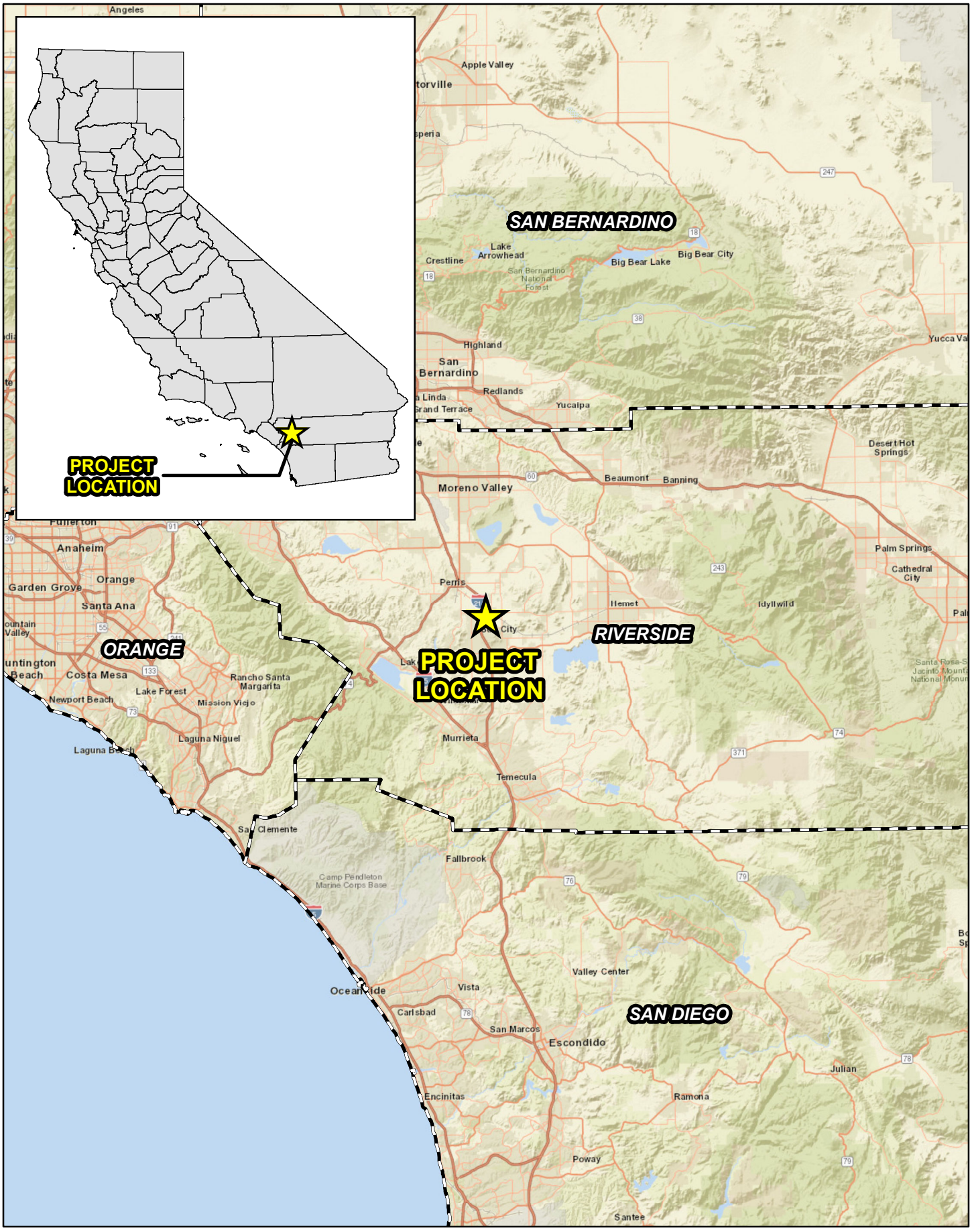
Travis J. McGill
Director

Attachments:

A. *Project Exhibits*
B. *Site Photographs*
C. *Potentially Occurring Special-Status Biological Resources*
D. *Regulations*
E. *Site Plan*

Attachment A

Project Exhibits



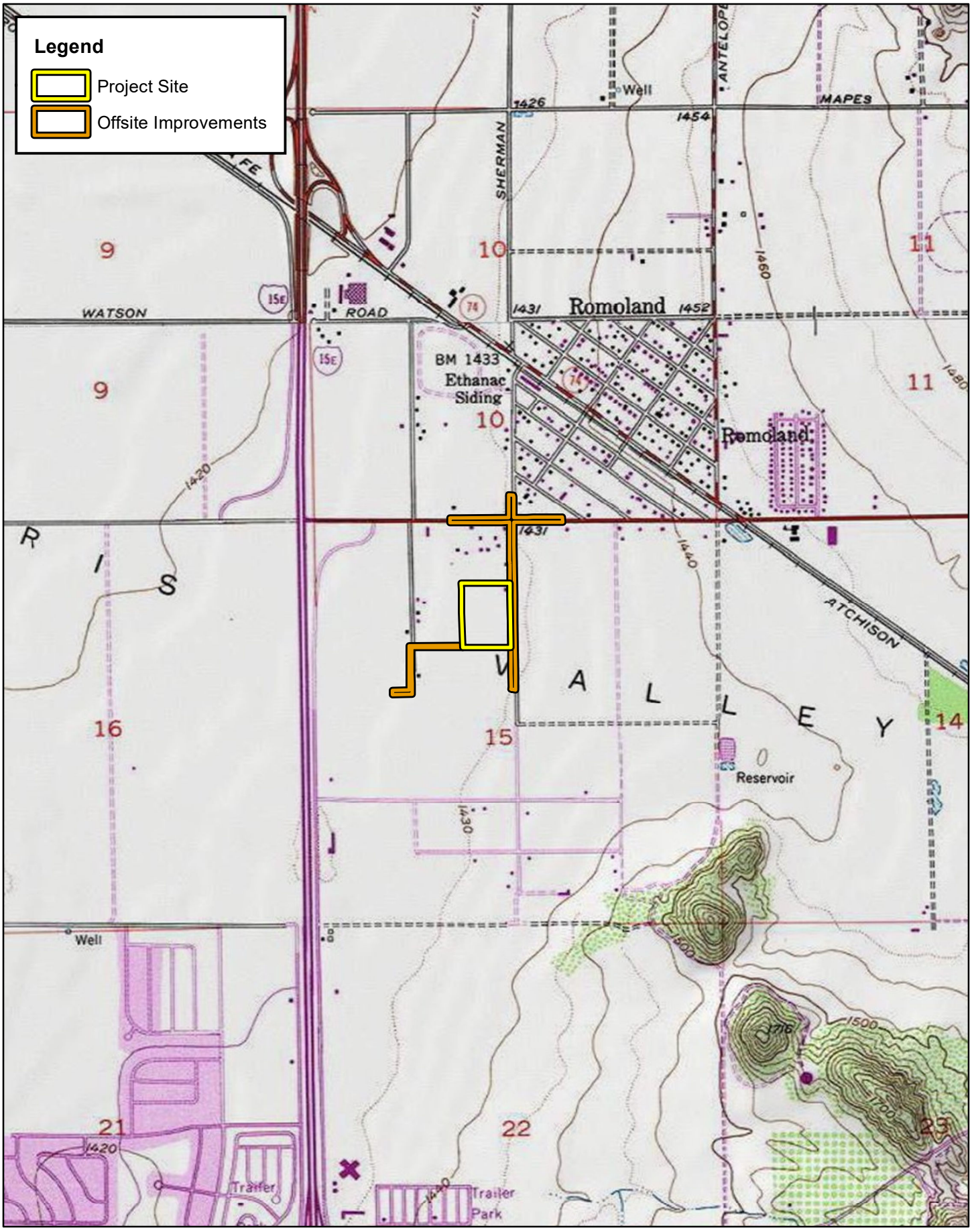
ELMT CONSULTING

Source: World Street Map, Riverside County

ETHANAC BUSINESS PARK

Regional Vicinity

Exhibit 1



0 1,000 2,000 4,000 Feet

Source: USA Topographic Map, Riverside County

ETHANAC BUSINESS PARK

Site Vicinity

Exhibit 2

ELMT CONSULTING

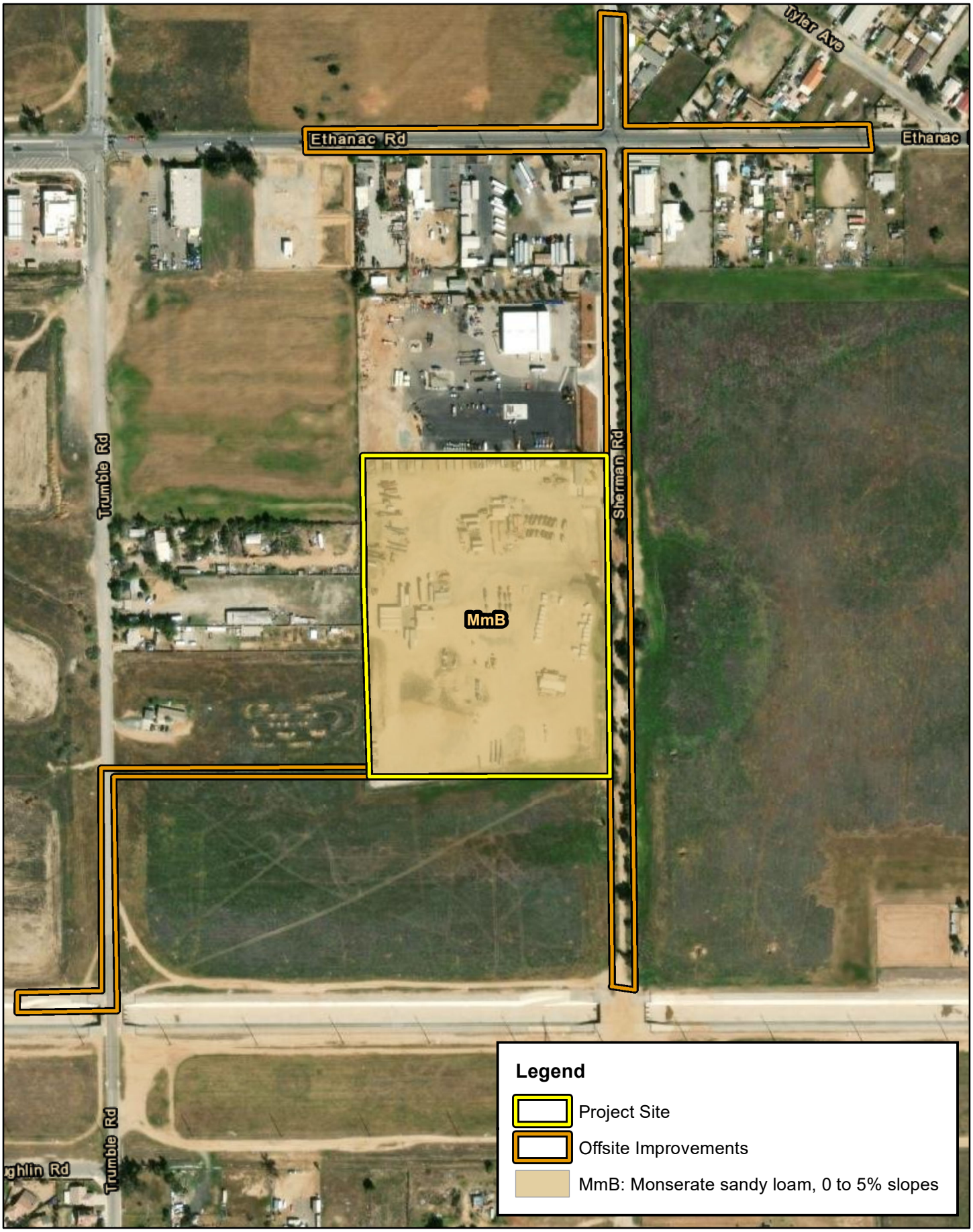
0 62.5125 250
Feet

Source: ESRI Aerial Imagery, Riverside County

ETHANAC BUSINESS PARK

Project Site

Exhibit 3



ELMT CONSULTING

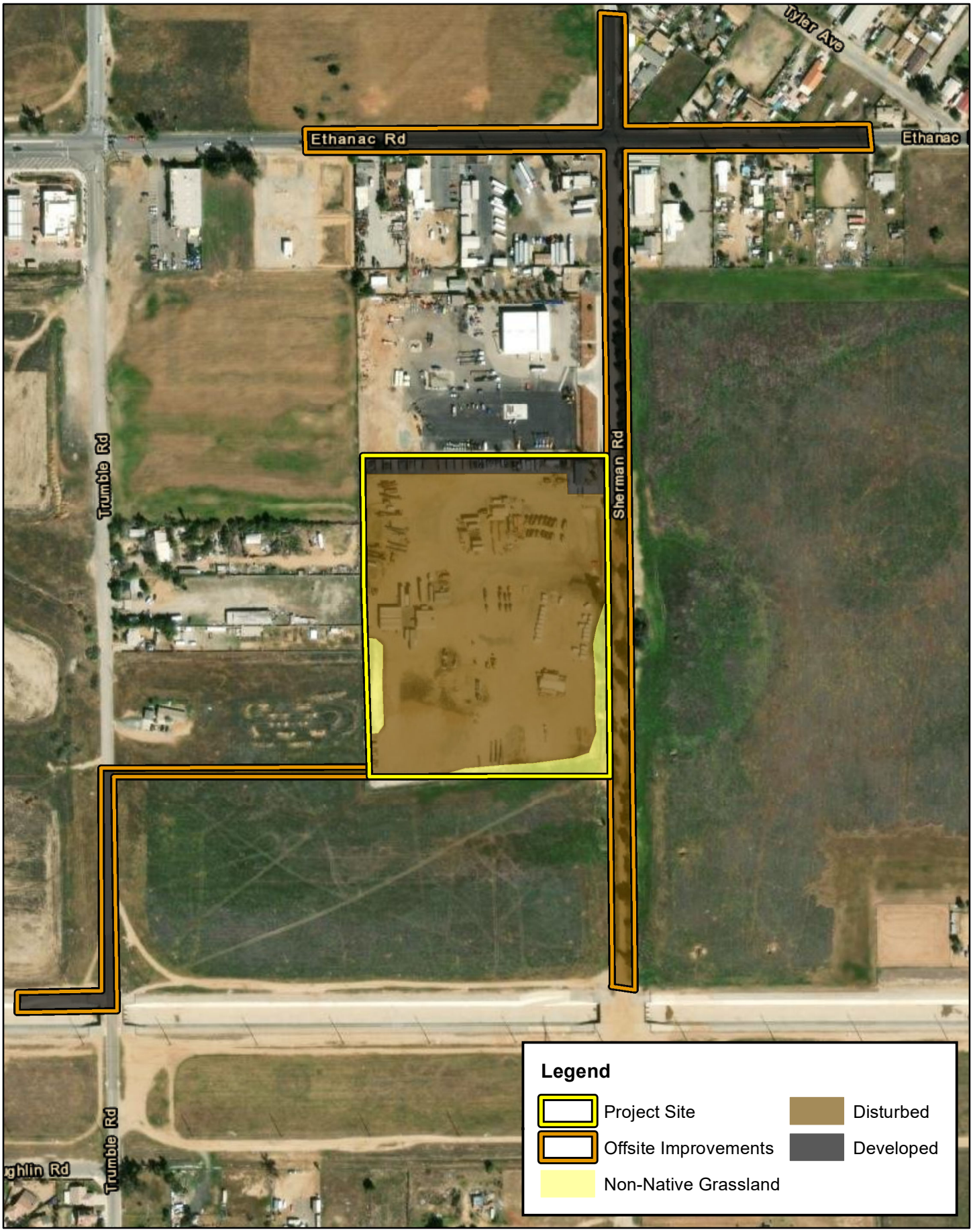
0 62.5125 250
Feet

Source: ESRI Aerial Imagery, Soil Survey Geographic Database, Riverside County

ETHANAC BUSINESS PARK

Soils

Exhibit 4



ELMT CONSULTING

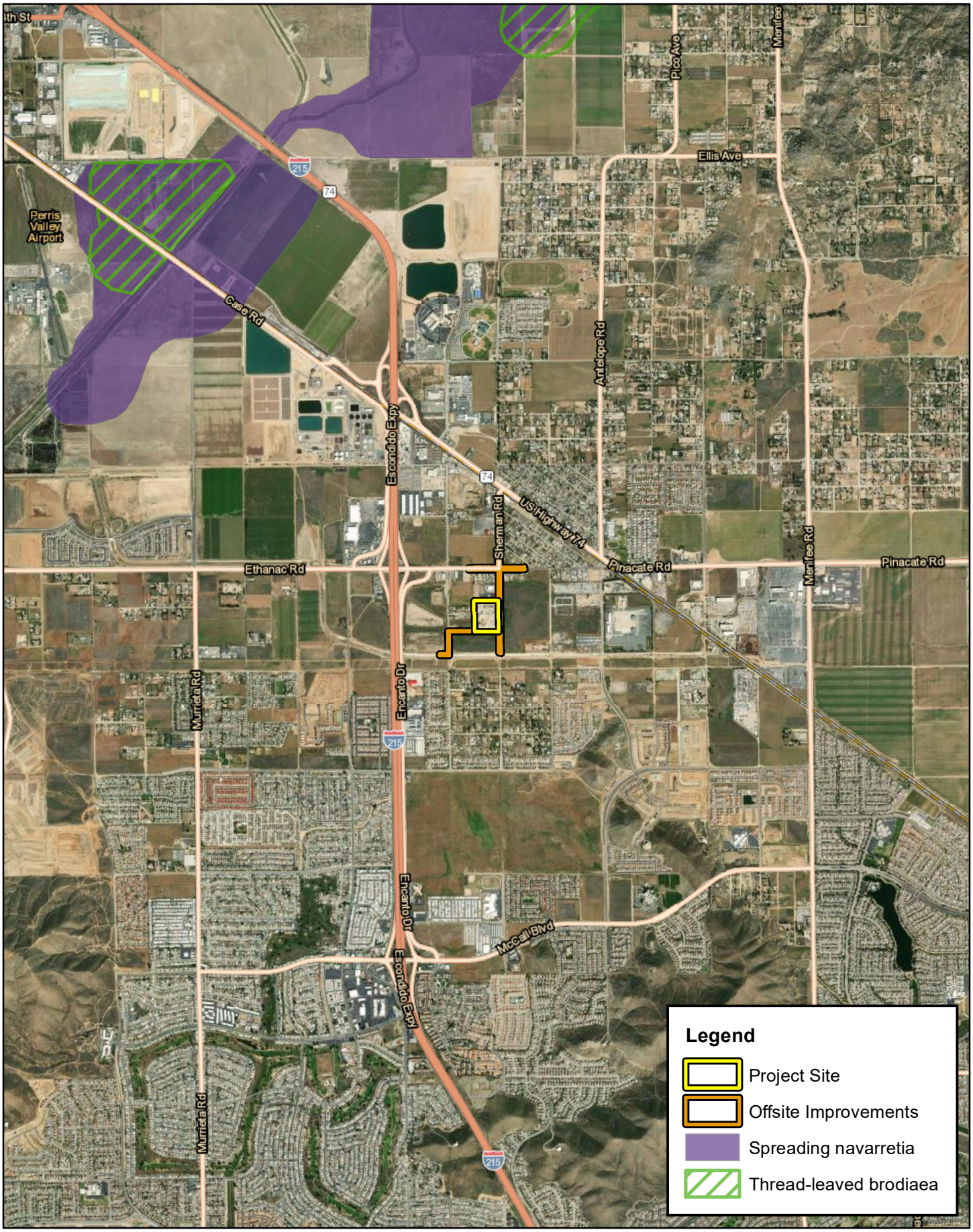
0 62.5125 250
Feet

Source: ESRI Aerial Imagery, Riverside County

ETHANAC BUSINESS PARK

Vegetation

Exhibit 5



ELMT CONSULTING

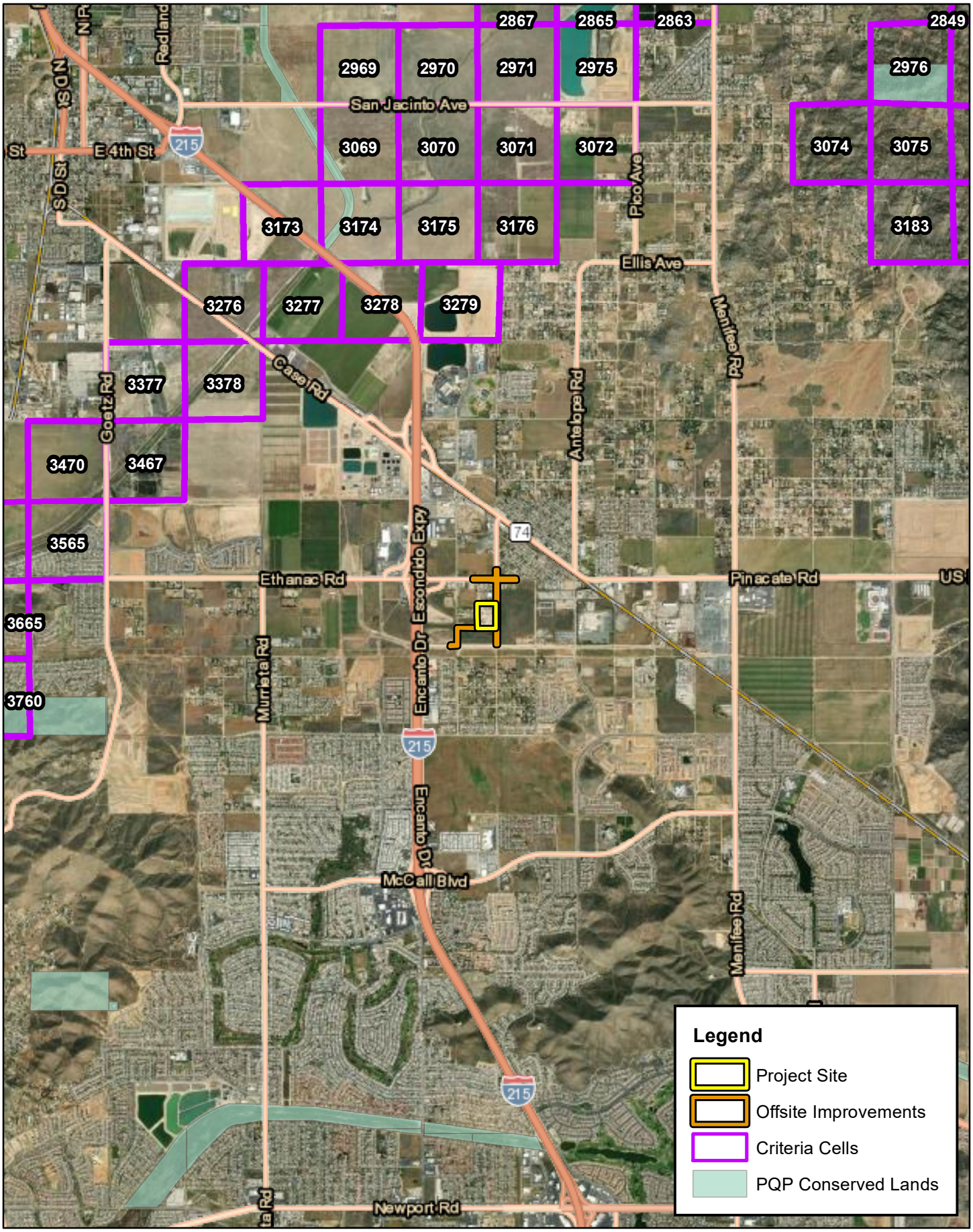
0 1,250 2,500 5,000 Feet

Source: ESRI Aerial Imagery, USFWS Critical Habitat, Riverside County

ETHANAC BUSINESS PARK

Critical Habitat

Exhibit 6



ELMT CONSULTING

0 2,000 4,000 8,000 Feet

Source: ESRI Aerial Imagery, Riverside County

ETHANAC BUSINESS PARK

MSHCP Criteria Area

Exhibit 7

Attachment B

Site Photographs

Photograph 1: From the northeast corner of the project site, looking south along the eastern boundary. Water from storm event a few days prior to the site visit.

Photograph 2: From the middle of the northern boundary of the project site, looking south through existing disturbance and commercial operations onsite.

Photograph 3: View of one of the sand/gravel holding stalls along the northern boundary of the project site.

Photograph 4: From the northwest corner of the project site, looking east along the northern boundary.

Photograph 5: From the northwest corner of the project site, looking south along the western boundary.

Photograph 6: From the southwest corner of the project site looking east along the southern boundary.

Photograph 7: From the southwest corner of the project site, looking north along the western boundary.

Photograph 8: From the middle of the southern boundary of the project site, looking west.

Photograph 9: From the middle of the southern boundary of the project site, looking north through existing disturbance and commercial operations onsite.

Photograph 10: From the middle of the southern boundary of the project site, looking east.

Photograph 11: From the southeast corner of the project site, looking west along the southern boundary.

Photograph 12: From the southeast corner of the project site, looking north along the eastern boundary.

Photograph 13: From the middle of the eastern boundary, looking west through existing disturbance and commercial operations.

Photograph 14: From the northeast area of the project site, looking through west through the entryway from Sherman Road.

Attachment C

Potentially Occurring Special-Status Biological Resources

Table C-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
WILDLIFE SPECIES					
Accipiter cooperii Cooper's hawk	Fed: None CA: WL	Generally found in forested areas up to 3,000 feet in elevation, especially near edges and rivers. Prefers hardwood stands and mature forests but can be found in urban and suburban areas where there are tall trees for nesting. Common in open areas during nesting season.	Yes	Yes	**High** Suitable foraging habitat present onsite. Suitable nesting habitat adjacent to site boundaries.
Accipiter striatus sharp-shinned hawk	Fed: None CA: WL	Found in pine, fir and aspen forests. They can be found hunting in forest interior and edges from sea level to near alpine areas. Can also be found in rural, suburban and agricultural areas, where they often hunt at bird feeders. Typically found in southern California in the winter months.	Yes	No	**Moderate** Suitable foraging habitat present onsite, suitable nesting habitat adjacent to site boundaries.
Agelaiums tricolr tricolored blackbird	Fed: None CA: **THR**; SSC	Prefers wetland and grassland habitats mostly in rice-growing regions and pasturelands. Found in cattail or tule marshes, forages in fields and farms. Breeds and nests in large freshwater marshes in dense stands of cattails, bulrushes, or in willows at the water's edge.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	Fed: None CA: WL	Typically found between 3,000 and 6,000 feet in elevation. Breed in sparsely vegetated scrubland on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush (*Artemisia californica*), but they can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Ammodramus savannarum grasshopper sparrow	Fed: None CA: SSC	Occurs in grassland, upland meadow, pasture, hayfield, and old field habitats. Optimal habitat contains short- to medium-height bunch grasses interspersed with patches of bare ground, a shallow litter layer, scattered forbs, and few shrubs. May inhabit thickets, weedy lawns, vegetated landfills, fence rows, open fields, or grasslands.	Yes (e)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Aquila chrysaetos golden eagle	Fed: None CA: FP; WL	Occupies nearly all terrestrial habitats of the western states except densely forested areas. Favors secluded cliffs with overhanging ledges and large trees for nesting and cover. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. Deeply cut canyons rising to open mountain slopes and crags are ideal habitat.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Ardea alba great egret	Fed: None CA: None	Yearlong resident throughout California, except for the high mountains and deserts. Feeds and rests in fresh, and saline emergent wetlands, along the margins of estuaries, lakes, and slow-moving streams, on mudflats and salt ponds, and in irrigated croplands and pastures.	No	Yes	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Ardea herodias great blue heron	Fed: None CA: None	Forages along streams, marshes, lakes, and meadows. Nests colonially in tall trees (typically Eucalyptus sp.), on cliffsides, or in isolated spots in marshes.	Yes	Yes	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Arizona elegans occidentalis California glossy snake	Fed: None CA: SSC	Inhabits arid scrub, rocky washes, grasslands, and chaparral habitats.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Artemisiospiza belli belli Bell's sparrow	Fed: None CA: WL	Generally prefers semi-open habitats with evenly spaced shrubs 1 – 2 meters in height. Dry chaparral and coastal sage scrub. Less common in tall dense, old chaparral.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Aspidoscelis hyperythra orangethroat whiptail	Fed: None CA: WL	Semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: None CA: SCC	Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Athene cunicularia burrowing owl	Fed: None CA: SSC	Occurs in open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent upon fossorial mammals for burrows, most notable ground squirrels.	Yes (c)	No	**Presumed Absent** Presence of existing disturbances and perching opportunities for raptors likely precludes the establishment of this species.
Bombus crotchii Crotch bumblebee	Fed: None CA: None	Exclusive to coastal California east towards the Sierra-Cascade Crest; less common in western Nevada.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Bombus pensylvanicus American bumble bee	Fed: None CA: None	Found in desert habitats and adjacent areas. Prefers farmlands, grasslands, and open fields. Nests embedded in grass or belowground.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Buteo regalis ferruginous hawk	Fed: None CA: WL	Occurs primarily in open grasslands and fields, but may be found in sagebrush flats, desert scrub, low foothills, or along the edges of pinyon-juniper woodland. Feeds primarily on small mammals and typically found in agricultural or open fields.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Buteo swainsoni Swainson's hawk	Fed: None CA: **THR**	Typical habitat is open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grassland or suitable grain or alfalfa fields or livestock pastures.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Calypte costae Costa's hummingbird	Fed: None CA: None	Desert and semi-desert, arid brushy foothills and chaparral. A desert hummingbird that breeds in the Sonoran and Mojave Deserts. Departs desert heat moving into chaparral, scrub, and woodland habitats.	No	Yes	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Chaetodipus californicus femoralis Dulzura pocket mouse	Fed: None CA: SSC	Occurs in desert and coastal habitats in southern California, Mexico, and northern Baja California, from sea level to at least 1,400 meters. Found in a variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Requires low growing vegetation or rocky outcroppings, as well as sandy soils for burrowing.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: None CA: SSC	Occurs in desert and coastal habitats in southern California, Mexico, and northern Baja California, from sea level to at least 1,400 meters. Found in a variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Requires low growing vegetation or rocky outcroppings, as well as sandy soils for burrowing.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Chaetura vauxi Vaux's swift	Fed: None CA: SSC	Prefers redwood and Douglas-fir habitats with nest-sites in large hollow trees and snags, especially tall, burned-out snags. Fairly common migrant throughout most of the state in April and May, and August and September.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Circus hudsonius northern harrier	Fed: None CA: SSC	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Mostly found in flat, or hummocky, open areas of tall, dense grasses moist or dry shrubs, and edges for nesting, cover, and feeding.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Coleonyx variegatus abbotti San Diego banded gecko	Fed: None CA: SCC	Occurs in coastal and cismontane southern California from interior Ventura County south, although it is absent from the extreme outer coast. It is uncommon in coastal scrub and chaparral, most often occurring in granite or rocky outcrops in these habitats.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Crotalus ruber red-diamond rattlesnake	Fed: None CA: SSC	It can be found from the desert, through dense chaparral in the foothills (it avoids the mountains above around 4,000 feet), to warm inland mesas and valleys, all the way to the cool ocean shore. It is most commonly associated with heavy brush with large rocks or boulders. Dense chaparral in the foothills, cactus or boulder associated coastal sage scrub, oak and pine woodlands, and desert slope scrub associations are known to carry populations of the northern red-diamond rattlesnake; however, chamise and red shank associations may offer better structural habitat for refuges and food resources for this species than other habitats.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Dipodomys merriami parvus San Bernardino kangaroo rat	Fed: **END** CA: **END**; SSC	Primarily found in Riversidian alluvial fan sage scrub and sandy loam soils, alluvial fans and flood plains, and along washes with nearby sage scrub. May occur at lower densities in Riversidian upland sage scrub, chaparral and grassland in uplands and tributaries in proximity to Riversidian alluvial fan sage scrub habitats. Tend to avoid rocky substrates and prefer sandy loam substrates for digging of shallow burrows.	Yes (c)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Dipodomys simulans Dulzura kangaroo rat	Fed: None CA: None	Typical habitat is open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grassland or suitable grain or alfalfa fields or livestock pastures.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Dipodomys stephensi Stephens' kangaroo rat	Fed: **THR** CA: **THR**	Occur in arid and semi-arid habitats with some grass or brush. Prefer open habitats with less than 50% protective cover. Require soft, well-drained substrate for building burrows and are typically found in areas with sandy soil.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Egretta thula snowy egret	Fed: None CA: None	Found in marshes, swamps, ponds, lakes, shallow coastal areas, tidal flats, and occasionally dry fields. Feeds in estuaries, saltmarshes, tidal channels, shallow bays, and mangroves. Nests in colonies on thick vegetation in isolated places such as barrier islands, dredge-spoil islands, salt marsh islands, and swamps and marshes			**Presumed Absent** There is no suitable habitat present within or adjacent to the project site
Elanus leucurus white-tailed kite	Fed: None CA: FP	Occurs in low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Uses trees with dense canopies for cover.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Empidonax traillii willow flycatcher	Fed: None CA: **END**	A rare to locally uncommon, summer resident in wet meadow and montane riparian habitats (2,000 to 8,000 ft) in the Sierra Nevada and Cascade Range. Most often occurs in broad, open river valleys or large mountain meadows with lush growth of shrubby willows.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Eremophila alpestris actia California horned lark	Fed: None CA: WL	Generally found in shortgrass prairies, grasslands, disturbed fields, or similar habitat types along the coast or in deserts. Trees are shrubs are usually scarce or absent. Generally rare in montane, coniferous, or chaparral habitats. Forms large flocks outside of the breeding season.	Yes	Yes	**Low** The project site provides marginal foraging habitat for this species. No nesting habitat present onsite.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Eumops perotis californicus western mastiff bat	Fed: None CA: SSC	Primarily a cliff-dwelling species, roost generally under exfoliating rock slabs. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least 3 meters below the entrance for flight. In California, it is most frequently encountered in broad open areas. Its foraging habitat includes dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Euphydryas editha quino Quino checkerspot butterfly	Fed: **END** CA: None	Range is now limited to a few populations in Riverside and San Diego counties. Common in meadows and upland sage scrub/chapparal habitat.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Falco columbarius merlin	Fed: None CA: WL	Found in treetops, low perches at forest edges, grasslands, and saltmarshes. Also found in fairly open country such as willow or birch scrub, shrubland, taiga forests, parks, grasslands, steppes, and prairies. Winters in open forests, grasslands, and coastal areas.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site
Falco peregrinus anatum American peregrine falcon	Fed: DL CA: DL	Uncommon winter resident of the inland region of southern California. Active nesting sites are known along the coast north of Santa Barbara, in the Sierra Nevada, and in other mountains of northern California. Breeds mostly in woodland, forest, and coastal habitats. Riparian areas and coastal and inland wetlands are important habitats yearlong, especially in nonbreeding seasons.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Icteria virens yellow-breasted chat	Fed: None CA: SSC	Primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. Breeding habitat must be dense to provide shade and concealment. It winters south the Central America.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Lanius ludovicianus loggerhead shrike	Fed: None CA: SSC	Often found in broken woodlands, shrublands, and other habitats. Prefers open country with scattered perches for hunting and fairly dense brush for nesting.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Lasiurus xanthinus western yellow bat	Fed: None CA: SSC	Roosts in palm trees in foothill riparian, desert wash, and palm oasis habitats with access to water for foraging.	No	No	**Presumed absent.** No suitable habitat is present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Lepus californicus bennettii San Diego black-tailed jackrabbit	Fed: None CA: None	Occurs in diverse habitats, but primarily is found in arid regions supporting shortgrass habitats. Openness of open scrub habitat is preferred over dense chaparral.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Neotoma lepida intermedia San Diego desert woodrat	Fed: None CA: SSC	Occurs in coastal scrub communities between San Luis Obispo and San Diego Counties. Prefers moderate to dense canopies, and especially rocky outcrops.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Numenius americanus long-billed curlew	Fed: None CA: WL	Preferred winter habitats include large coastal estuaries, upland herbaceous areas, and croplands. On estuaries, feeding occurs mostly on intertidal mudflats.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Nycticorax nycticorax black-crowned night heron	Fed: None CA: None	Fairly common, yearlong resident in lowlands and foothills throughout most of California, including the Salton Sea and Colorado River areas, and very common locally in large nesting colonies. Feeds along the margins of lacustrine, large riverine, and fresh and saline emergent habitats and rarely, on kelp beds in marine sub tidal habitats. Nests and roosts in dense-foliaged trees and dense emergent wetlands.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Onychomys torridus ramona southern grasshopper mouse	Fed: None CA: SSC	Inhabits alkali desert scrub and other desert scrub habitats, and to a lesser extent succulent shrubs, desert washes, desert riparian, coastal scrub, mixed chaparral, and sagebrush habitats. Generally rare in valley foothill and montane riparian habitats. Prefers low to moderate shrub cover and requires friable soils.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Perognathus longimembris brevinasus Los Angeles pocket mouse	Fed: None CA: SSC	Occurs in lower elevation grasslands and coastal sage scrub communities in and around the Los Angeles Basin. Prefers open ground with fine sandy soils. May not dig extensive burrows, but instead will seek refuge under weeds and dead leaves instead.	Yes (c)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Phrynosoma blainvillii coast horned lizard	Fed: None CA: SSC	Occurs in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (i.e. fire, floods, roads, grazing, fire breaks). The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Plegadis chihi white-faced ibis	Fed: None CA: WL	Prefers to feed in fresh emergent wetland, shallow lacustrine waters, muddy ground of wet meadows, and irrigated or flooded partures and croplands. Nests in dense, fresh emergent wetland.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Polioptila californica californica coastal California gnatcatcher	Fed: **THR** CA: SSC	Obligate resident of sage scrub habitats that are dominated by California sagebrush (*Artemisia californica*). This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. Ranges from the Ventura County, south to San Diego County and northern Baja California and it is less common in sage scrub with a high percentage of tall shrubs. Prefers habitat with more low-growing vegetation.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Setophaga petechia yellow warbler	Fed: None CA: SSC	Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes and the eastern side of the Sierra Nevada. Winters along the Colorado River and in parts of Imperial and Riverside Counties. Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Spea hammondii western spadefoot	Fed: None CA: SSC	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washed, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rainpools which do not contain bullfrogs, fish, or crayfish are necessary for breeding.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Spinus lawrencei Lawrence's goldfinch	Fed: None CA: None	Open woodlands, chaparral, and weedy fields. Closely associated with oaks. Nests in open oak or other arid woodland and chaparral near water.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Streptocephalus woottoni Riverside fairy shrimp	Fed: **END** CA: None	Freshwater crustacean that is found in vernal pools in the coastal California area.	Yes (a)	No	**Low** Soils associated with species not associated with project site. However, ponding observed throughout site
Vireo bellii pusillus least Bell's vireo	Fed: **END** CA: **END**	Primarily occupy Riverine riparian habitat that typically feature dense cover within 1 -2 meters of the ground and a dense, stratified canopy. Typically it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodlands, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses, 2,000 feet elevation in the interior.	Yes (a)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
PLANT SPECIES					
Allium munzii Munz's onion	Fed: **END** CA: **THR** CNPS: 1B.1	Found in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, valley and foothill grassland. Found at elevations ranging from 974 to 3,510 feet. Blooming period is from March to May.	Yes (b)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Brodiaea filifolia thread-leaved brodiaea	Fed: **THR** CA: **END** CNPS: 1B.1	Grows in chaparral openings, cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools, often in clay soils. Found at elevations ranging from 82 to 3,675 feet. Blooming period is from March to June.	Yes (d)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Caulanthus simulans Payson's jewelflower	Fed: None CA: None CNPS: 4.2	Occurs on granitic sandy soils in chaparral and coastal scrub habitats. Found at elevations ranging from 295 to 7,218 feet. Blooming period is from February to June.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Centromadia pungens ssp. laevis smooth tarplant	Fed: None CA: None CNPS: 1B.1	Found in alkaline soils within chenopod scrub, meadows and seeps, playas, riparian woodland, valley, and foothill grassland habitats. Found at elevations ranging from 0 to 2,100 feet. Blooming period is from April to September.	Yes (d)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Chorizanthe leptotheca Peninsular spineflower	Fed: None CA: None CNPS: 4.2	Found in granitic soils within chaparral, coast scrub, and lower montane coniferous forest habitats. Found at elevations ranging from 984 to 6,234 feet. Blooming period is from May to August.	Yes (e)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Chorizanthe parryi* var. *parryi Parry's spineflower	Fed: None CA: None CNPS: 1B.1	Occurs on sandy and/or rocky soils in chaparral, coastal sage scrub, and sandy openings within alluvial washes and margins. Found at elevations ranging from 951 to 3,773 feet. Blooming period is from April to June.	Yes (e)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Chorizanthe polygonoides var. longispina long-spined spineflower	Fed: None CA: None CNPS: 1B.2	Typically found on clay lenses which are largely devoid of shrubs. Can be found on the periphery of vernal pool habitat and even on the periphery of montane meadows near vernal seeps. Found at elevations ranging from 98 to 5,020 feet. Blooming period is from April to July.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Convolvulus simulans small-flowered morning-glory	Fed: None CA: None CNPS: 4.2	Grows in clay soils within serpentinite seeps, chaparral, coastal scrub, valley and foothill grassland habitats. Found at elevations ranging from 98 to 2,297 feet. Blooming period is from March to July.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Deinandra paniculata paniculate tarplant	Fed: None CA: None CNPS: 4.2	Typically found in vernally mesic, sometimes sandy soils in coastal scrub, valley and foothill grasslands, and vernal pools. Found at elevations ranging from 82 to 3,084 feet. Blooming period is from April to November.	No	Yes	**Low** Although minimal habitat is present within the project site, this species is known to occur in disturbed areas.
Harpagonella palmeri Palmer's grapplinghook	Fed: None CA: None CNPS: 4.2	Occurs on clay soils in chaparral, coastal scrub, and valley and foothill grasslands. Found at elevations ranging from 66 to 3,133 feet. Blooming period is from March to May.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Juglans californica southern California black walnut	Fed: None CA: None CNPS: 4.2	Occurs in alluvial soils in chaparral, cismontane woodland, coastal scrub, and riparian woodlands. From 15 to 5,875 feet in elevation. Blooming period is from May to June.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Lasthenia glabrata* ssp. *coulteri Coulter's goldfields	Fed: None CA: None CNPS: 1B.1	Prefers playas, vernal pools, and coastal salt marshes and swamps. Found at elevations ranging from 3 to 4,003 feet. Blooming period is from February to June.	Yes (d)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Lepidium virginicum var. robinsonii Robinson's pepper-grass	Fed: None CA: None CNPS: 4.3	Dry soils on chaparral and coastal sage scrub. Found at elevations ranging from 3 to 2,904 feet. Blooming period is from January to July.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Microseris douglasii* ssp. *platycarpha small-flowered microseris	Fed: None CA: None CNPS: 4.2	Occurs in clay soils in cismontane woodland, coastal scrub, valley and foothill grasslands, and around vernal pools. Found at elevations ranging from 49 to 3,510 feet. Blooming period is from March to May.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Myosurus minimus ssp. apus little mousetail	Fed: None CA: None CNPS: 3.1	Occurs in alkaline soils in valley and foothill grassland and vernal pools. Found at elevations ranging from 66 to 2,100 feet. Blooming period is from March to June.	Yes (d)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Navarretia fossalis spreading navarretia	Fed: **THR** CA: None CNPS: 1B.1	Grows in chenopod scrub, assorted shallow freshwater marshes and swamps, playas, and vernal pools. Found at elevations ranging from 98 to 2,149 feet. Blooming period is from April to June.	Yes (b)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Orcuttia californica California Orcutt grass	Fed: **END** CA: **END** CNPS: 1B.1	Primarily restricted to the southern basaltic claypan vernal pools at the Santa Rosa Plateau, and alkali vernal pools at Skunk Hollow, and at Salt Creek. Grows in elevations ranging from 45 to 2,165 feet above msl. Blooming period is from April to August.	Yes (b)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
CDFW SENSITIVE HABITATS					
Southern Coast Live Oak Riparian Forest	CDFW Sensitive Habitat	Open to locally dense evergreen riparian woodlands dominated by *Quercus agrifolia*. This type appears to be richer in herbs and poorer in understory shrubs than other riparian communities. Bottomlands and outer floodplains along larger streams, on fine-grained, rich alluvium. Canyons and valleys of coastal southern California.	NA	No	**Absent**
Southern Cottonwood Willow Riparian Forest	CDFW Sensitive Habitat	Dominated by cottonwood (*Populus* sp.) and willow (*Salix* sp.) trees and shrubs. Considered to be an early successional stage as both species are known to germinate almost exclusively on recently deposited or exposed alluvial soils.	NA	No	**Absent**

U.S. Fish and Wildlife Service (Fed) - Federal
END- Federal Endangered
THR- Federal Threatened

California Department of Fish and Wildlife (CA) - California
END- California Endangered
THR- California Threatened
Candidate- Candidate for listing under the California Endangered Species Act
FP- California Fully Protected

California Native Plant Society (CNPS)
California Rare Plant Rank
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 Plants About Which More Information is

CNPS Threat Ranks
0.1- Seriously threatened in California
0.2- Moderately threatened in California
0.3- Not very

Western Riverside County MSHCP
Yes- Fully covered
No- Not covered
Yes (a)- May require surveys under MSHCP Section 6.1.2
Yes (b)- May require surveys under MSHCP Section 6.1.3
Yes (c)- May require surveys under

SSC- Species of Special Concern
WL- Watch List

Needed – A Review List
4 Plants of Limited Distribution – A Watch List

threatened in California

MSHCP Section 6.3.2
Yes (d)- May require surveys under MSHCP Section 6.3.2
Yes (e)- Conditionally covered pending the achievement of species-specific conservation measures

Attachment D

Regulations

Special status species are native species that have been afforded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

Federal Regulations

Endangered Species Act of 1973

Federally listed threatened and endangered species and their habitats are protected under provisions of the Federal Endangered Species Act (ESA). Section 9 of the ESA prohibits "take" of threatened or endangered species. "Take" under the ESA is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct." The presence of any federally threatened or endangered species that are in a project area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under the regulations of the ESA, the United States Fish and Wildlife Service (USFWS) may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

Critical Habitat is designated for the survival and recovery of species listed as threatened or endangered under the ESA. Critical Habitat includes those areas occupied by the species, in which are found physical and biological features that are essential to the conservation of an ESA listed species and which may require special management considerations or protection. Critical Habitat may also include unoccupied habitat if it is determined that the unoccupied habitat is essential for the conservation of the species.

Whenever federal agencies authorize, fund, or carry out actions that may adversely modify or destroy Critical Habitat, they must consult with USFWS under Section 7 of the ESA. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highway Administration or a permit from the U.S. Army Corps of Engineers (Corps)).

If USFWS determines that Critical Habitat will be adversely modified or destroyed from a proposed action, the USFWS will develop reasonable and prudent alternatives in cooperation with the federal institution to ensure the purpose of the proposed action can be achieved without loss of Critical Habitat. If the action is not likely to adversely modify or destroy Critical Habitat, USFWS will include a statement in its biological opinion concerning any incidental take that may be authorized and specify terms and conditions to ensure the agency is in compliance with the opinion.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) makes it unlawful to pursue, capture, kill, possess, or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union, and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 10, 21).

The MBTA covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered "take." This regulation seeks to protect migratory birds and active nests.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protects all species and subspecies of the families listed above. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds and many relatively common species.

State Regulations

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines "endangered" and "rare" species separately from the definitions of the California Endangered Species Act (CESA). Under CEQA, "endangered" species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while "rare" species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act (CESA)

In addition to federal laws, the state of California implements the CESA which is enforced by CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under provisions of the CESA. Activities that may result in "take" of individuals (defined in CESA as; "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") are regulated by CDFW. Habitat degradation or modification is not included in the definition of "take" under CESA. Nonetheless, CDFW has interpreted "take" to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the

absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

The CDFW has also produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection. At the federal level, USFWS also uses the label species of concern, as an informal term that refers to species which might be in need of concentrated conservation actions. As the Species of Concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

Fish and Game Code

Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 are applicable to natural resource management. For example, Section 3503 of the Code makes it unlawful to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Section 3503.5 of the Fish and Game Code which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of prey nest that may occur on a project site. Section 3511 of the Fish and Game Code lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected by the State include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). Section 3513 of the Fish and Game Code makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Native Plant Protection Act

Sections 1900–1913 of the Fish and Game Code were developed to preserve, protect, and enhance Rare and Endangered plants in the state of California. The act requires all state agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Native Plant Society Rare and Endangered Plant Species

Vascular plants listed as rare or endangered by the CNPS, but which have no designated status under FESA or CESA are defined as follows:

California Rare Plant Rank

1A- Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere

1B- Plants Rare, Threatened, or Endangered in California and Elsewhere

2A- Plants Presumed Extirpated in California, But More Common Elsewhere

2B- Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3- Plants about Which More Information is Needed - A Review List

4- Plants of Limited Distribution - A Watch List

Threat Ranks

.1- Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3- Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known).

Local Policies

Western Riverside County MSHCP

The MSHCP is a comprehensive, multi-jurisdictional HCP focusing on conservation of species and their associated habitats in western Riverside County. The goal of the MSHCP is to maintain biological and ecological diversity within a rapidly urbanizing region.

The approval of the MSHCP and execution of the Implementing Agreement (IA) by the wildlife agencies allows signatories of the IA to issue "take" authorizations for all species covered by the MSHCP, including state- and federal-listed species as well as other identified sensitive species and/or their habitats. Each city or local jurisdiction will impose a Development Mitigation Fee for projects within their jurisdiction. With payment of the mitigation fee to the County and compliance with the survey requirements of the MSHCP where required, full mitigation in compliance with the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), CESA, and FESA will be granted. The Development Mitigation Fee varies according to project size and project description. The fee for industrial development is $7,382 per acre (County Ordinance 810.2). Payment of the mitigation fee and compliance with the requirements of Section 6.0 of the MSHCP are intended to provide full mitigation under CEQA, NEPA, CESA, and FESA for impacts to the species and habitats covered by the MSHCP pursuant to agreements with the USFWS, the CDFW, and/or any other appropriate participating regulatory agencies and as set forth in the IA for the MSHCP.

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates activities pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFG regulates activities under the Fish and Game Code Section 1600-1616, and the Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

Federal Regulations

Section 404 of the Clean Water Act

Since 1972, the Corps and U.S. Environmental Protection Agency (EPA) have jointly regulated the filling of "waters of the U.S.," including wetlands, pursuant to Section 404 of the Clean Water Act (CWA). The Corps has regulatory authority over the discharge of dredged or fill material into the waters of the United States under Section 404 of the CWA. The Corps and EPA define "fill material" to include any "material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States." Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and "materials used to create any structure or infrastructure in the waters of the United States."

The Pre-2015 Regulatory definitions are as follows:

> (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
> (b)All interstate waters, including interstate "wetlands;"
> (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
>> (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;
>> (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
>> (3) Which are used or could be used for industrial purposes by industries in interstate commerce;
>
> (d) All impoundments of waters otherwise defined as waters of the United States under this definition;
> (e) Tributaries of waters identified in paragraphs (1) – (4) of this definition;
> (f)The territorial sea; and
> (g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) – (f) of this definition.

Section 401 of the Clean Water Act

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the

physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits, and helps insure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Water Quality Control Boards (Regional Board) that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board assumed this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

Section 401 of the Clean Water Act

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits, and helps insure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Water Quality Control Boards (Regional Board) that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board assumed this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

State Regulations

Fish and Game Code

Fish and Game Code Sections 1600 et. seq. establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Fish and Game Code Section 1602 requires any person, state, or local governmental agency or public utility to notify the CDFW before beginning any activity that will do one or more of the following:

(1) substantially obstruct or divert the natural flow of a river, stream, or lake;
(2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or
(3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or

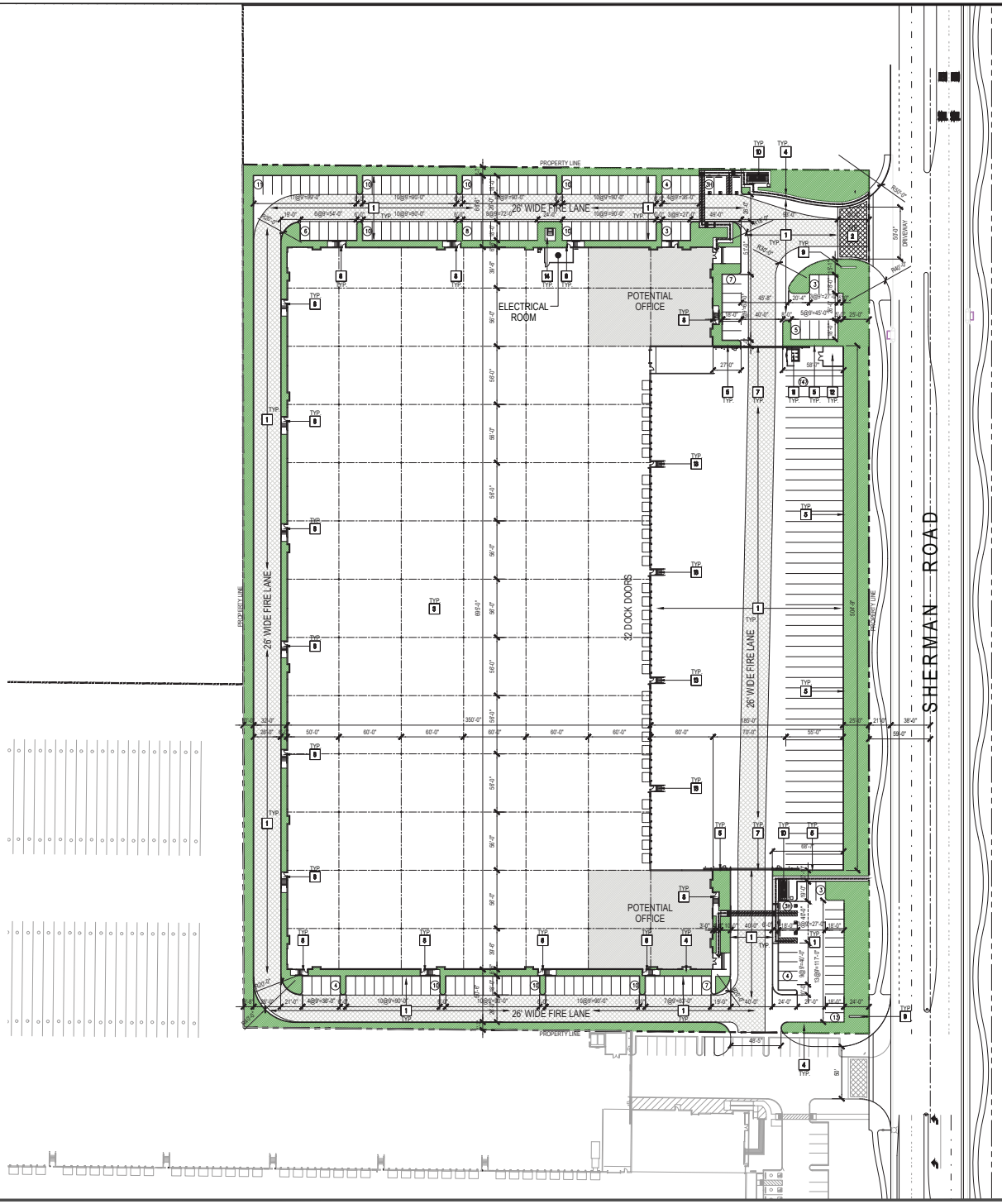
have supported riparian vegetation. A Section 1602 Streambed Alteration Agreement would be required if impacts to identified CDFW jurisdictional areas occur.

Porter Cologne Act

The California *Porter-Cologne Water Quality Control Act* gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Act has become an important tool in the post SWANCC and Rapanos regulatory environment, with respect to the state's authority over isolated and insignificant waters. Generally, any person proposing to discharge waste into a water body that could affect its water quality must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although "waste" is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include fill discharged into water bodies.

Attachment E

Site Plan



APPLICANT/OWNER

CORE5 INDUSTRIAL PARTNERS
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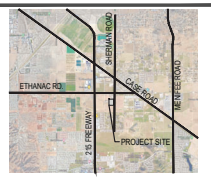
949-467-3290
JKELLY@C5IP.COM

PROJECT ADDRESS / APN

TBD, BETWEEN TRUMBLE ROAD AND SHERMAN,
SOUTH OF ETHANAC ROAD MENIFEE, CA
APN: 331-110-031, 024-026, 331-110-023, 038, 039

VICINITY MAP



PROJECT DESCRIPTION

NEW CONSTRUCTION FOR (1) SPECULATIVE 264,710 S.F. TYPE III-B, S-1/B OCCUPANCY WAREHOUSE WITH ESFR FIRE SPRINKLER SYSTEM. PROPOSED SITE IMPROVEMENTS CONSIST OF CONCRETE TILT SCREEN WALL, TRASH ENCLOSURE, PUMP HOUSE, SITE LIGHTING STANDARDS, AND HARDSCAPE/LANDSCAPE IMPROVEMENTS PER CITY STANDARDS.

PROJECT DATA

Menifee

			BLDG
SITE AREA			490,720 SF
			11.47 AC
BUILDING AREA			
1ST FLOOR	WAREHOUSE		249,710 SF
	OFFICE		5,000 SF
1ST TOTAL			**254,710** SF
2ND FLOOR	WAREHOUSE		5,000 SF
	OFFICE		5,000 SF
TOTAL			**264,710** SF
PROJECT FACT			
Zoning			SP 260
FAR			0.53
CLEAR HEIGHT			36'
BLDG Height			42'
PARKING REQ.			
AUTO PARKING			
SIZE		9'x 18'	
OFFICE		1/250 sf	40
WAREHOUSE		1/2000 sf	128
TOTAL			**168**
PARKING PROVIDED			
AUTO PARKING			
STANDARD		9'X18'	**168**
TRAILER		10'x55'	**47**
ZONING			
ZONING			
SET BACK			
	FRONT		25'
	SIDE		5'
	REAR		0'
LANDSCAPE			
		PROVIDED (11.6%)	**50,864** SF

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINES UNLESS NOTED OTHERWISE.
2. ENTIRE PROJECT SHALL BE PERMANENTLY MAINTAINED WITH A SMART AUTOMATIC IRRIGATION SYSTEM.
3. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SITE DRAINAGE, TOPOGRAPHY AND UTILITIES.
4. FOR PAVING SECTIONS, CONCRETE CURBS, SWALES AND GUTTERS SEE CIVIL DRAWINGS.
5. PROPERTY LINE ARE REFERENCE ONLY. REFER TO CIVIL DRAWINGS FOR HORIZONTAL CONTROL.
6. LANDSCAPE AREAS SHALL BE DELINEATED WITH A MIN. 6" CONCRETE CURB.

KEYNOTES

1. SITE PAVING WITH HEAVY BROOM FINISH. SEE CIVIL FOR PAVEMENT THICKNESS.
2. DECORATIVE PAVEMENT AT ENTRY - COLORED CONCRETE W/ SAW CUT PATTERN.
3. PRIMARY BUILDING.
4. PEDESTRIAN CONCRETE WALKWAY WITH MEDIUM BROOM FINISH.
5. CONCRETE SCREEN WALL 14'H FT.
6. WROUGHT IRON FENCE 8'H FT.
7. 8'H BLACK PAINTED VEHICULAR ROLLING GATE WITH KNOX PAD LOCK. MANUALLY OPERATED. PROVIDE CONDUITS FOR FUTURE OPERATOR.
8. 6'-0" X 6' X 4" THICK CONCRETE LANDING PAD AT ALL EXTERIOR MANDOORS WITH MEDIUM BROOM FINISH.
9. FUTURE MONUMENT SIGN WITH ELEC. CONDUITS.
10. EMPLOYEE BREAK AREA, TENANT FURNISHED UNLESS NOTED OTHERWISE.
11. TRASH ENCLOSURE.
12. PUMP HOUSE.
13. EXTERIOR CONCRETE STAIR.
14. APPROXIMATE LOCATION OF ELEC. TRANSFORMER WITH BOLLARD PROTECTION AND LANDSCAPE SCREENING.
15. NOT USED.
16. SHORT TERM - BICYCLE RACK 8% OF PARKING STALL.
17. DESIGNATED SMOKING AREA - 25' AWAY FROM ANY ENTRY.

LEGEND

- STANDARD PARKING STALL 9' X 18'
- CLEAN AIR, VANPOOL / EV 9' X18'
- ADA PARKING VAN 12' X 18' OR STANDARD 9' X 18' WITH 5' CLR AISLE
- PROPERTY LINE
- ACCESSIBLE PATH OF TRAVEL. MAX 5% SLOPE AND MAX 2% CROSS SLOPE WITH 48" MIN. CLEAR, UNLESS NOTED OTHERWISE WITH ADA ACCESSIBLE RAMP
- LANDSCAPE, SEE LANDSCAPE DRAWINGS

OVERALL SITE PLAN

TRUE NORTH

SCALE 1" = 40'-0"

1

SKH

STEVE K HONG ARCHITECT
4680 MACARTHUR BLVD. SUITE 550
IRVINE CALIFORNIA 92660
PROJECT MANAGER: STEVE HONG
714 - 822 - 1171, STEVE@SKHARCHITECT.COM

LICENSED ARCHITECT STEVE K. HONG NO. C-31677 REN. 08/31/25 STATE OF CALIFORNIA

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ETHANAC BUSINESS PARK BUILDING 1

TBD MENIFEE CA

CORE5 INDUSTRIAL PARTNERS
300 SPECTRUM CENTER DRIVE
SUITE 880 IRVINE CA 92618

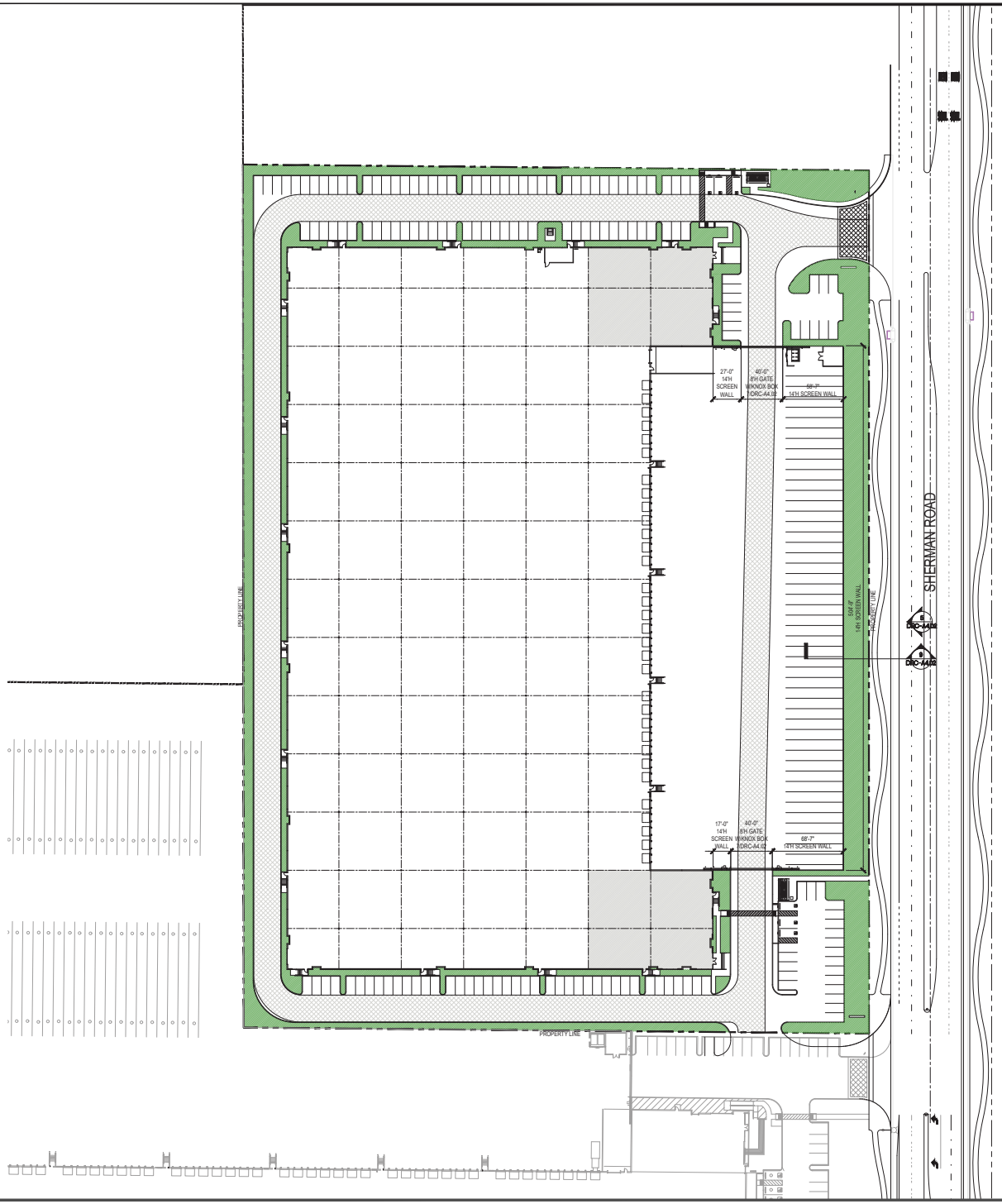
No.	ISSUANCE	DATE

JOB No. 22-178
DRAWN STEVE HONG
CHECKED STEVE HONG

SHEET TITLE
ARCHITECTURAL
OVERALL SITE PLAN

SHEET NUMBER
DRC-A1.01

Plot Date: 9/7/2023 4:00:26 PM Last Save By: steve Login: Steve Hong L:\Projects\Core5\22-178 Core5 Menifee Sherman And Ethanac\03 - Design\04 - Entitlements And CD's\DRC-A1.01.dwg



OVERALL SITE PLAN

TRUE NORTH

SCALE 1" = 40'-0"

1

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TBD MENIFEE CA

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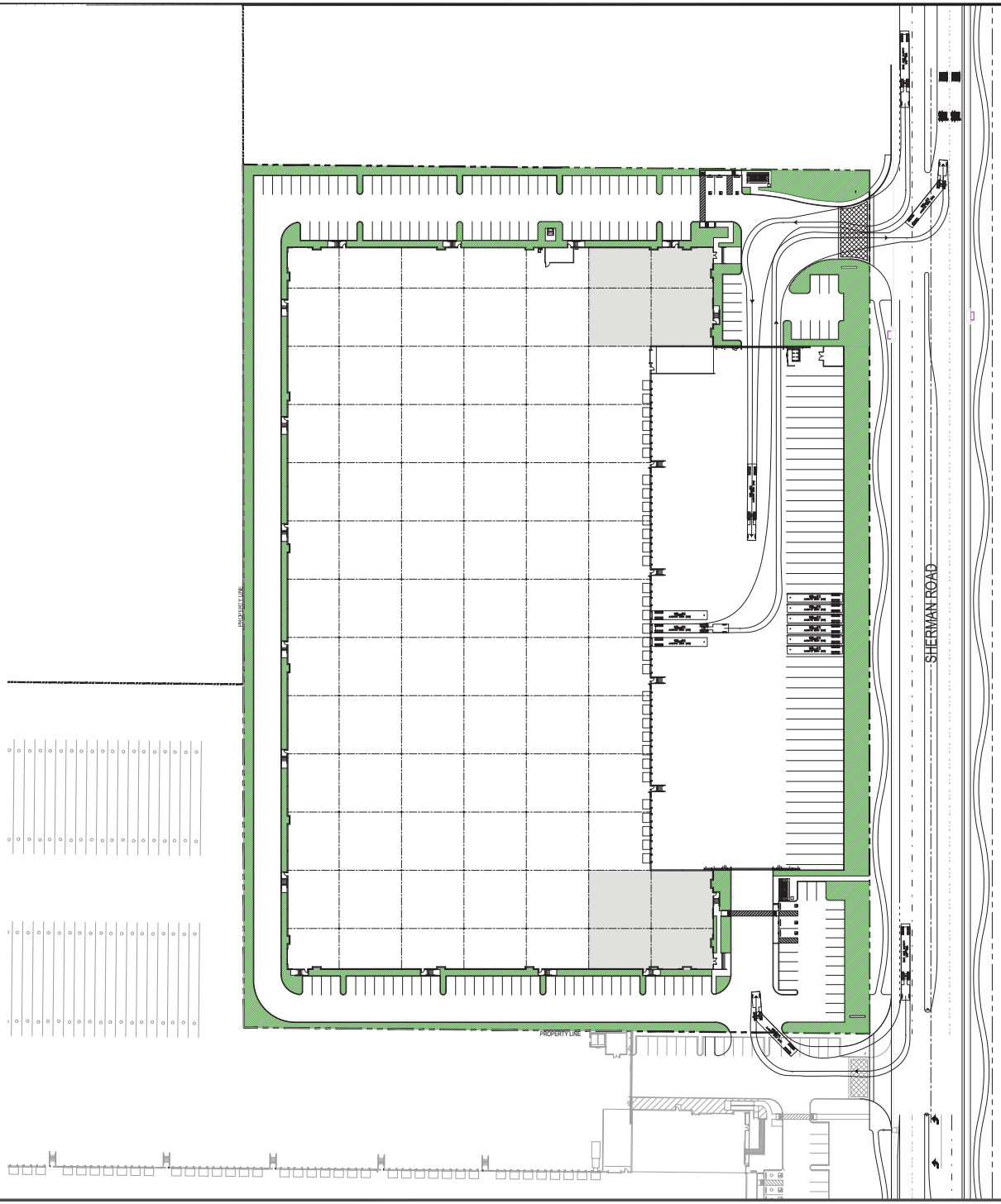
No.	ISSUANCE	DATE

JOB No. 22-178
DRAWN STEVE HONG
CHECKED STEVE HONG

SHEET TITLE
ARCHITECTURAL
SCREEN WALL PLAN

SHEET NUMBER
DRC-A1.02

Plot Date: 9/7/2023 - 09:32 PM Last Save By: steve Login: Steve Hong L:\Projects\Core5\22-178 Core5 Menifee Sherman And E thanac\03 - Design\04 - Entitlements And CD's\DRC-A1.02.dwg



OVERALL SITE PLAN

TRUE NORTH

SCALE 1" = 40'-0"

1

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No.	ISSUANCE	DATE

JOB No. 22-178
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SHEET TITLE
ARCHITECTURAL
TRUCK CIRCULATION PLAN

SHEET NUMBER
DRC-A1.03

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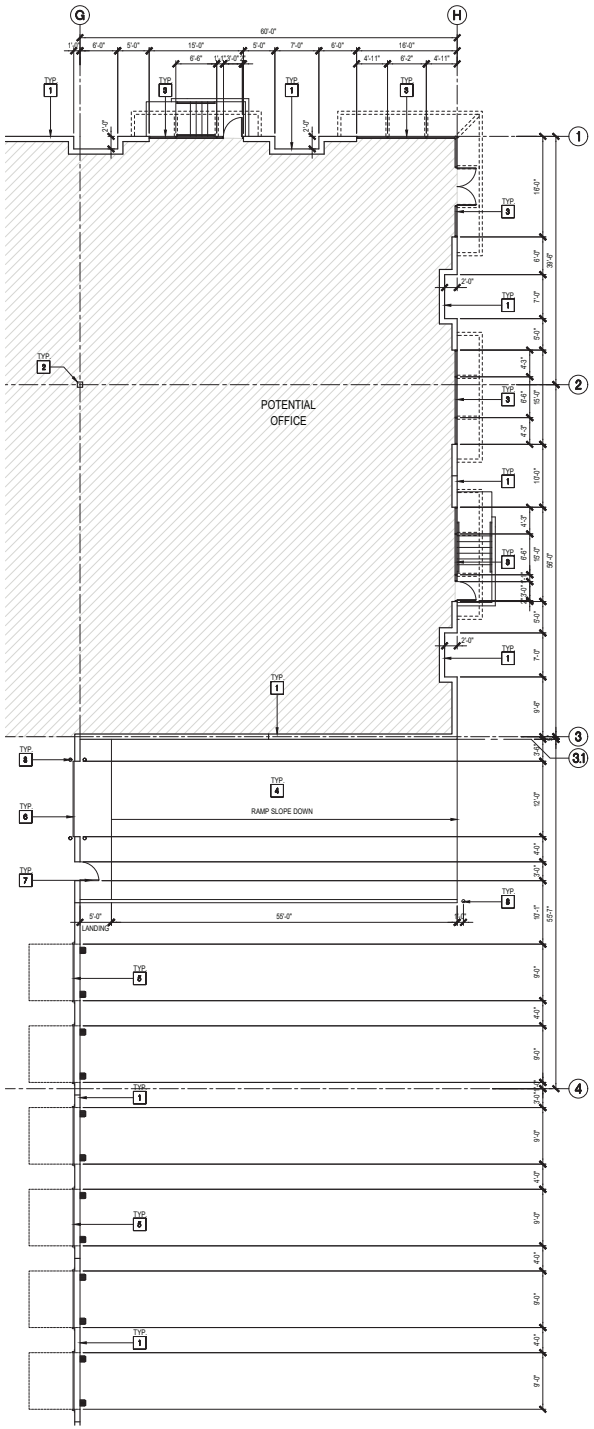
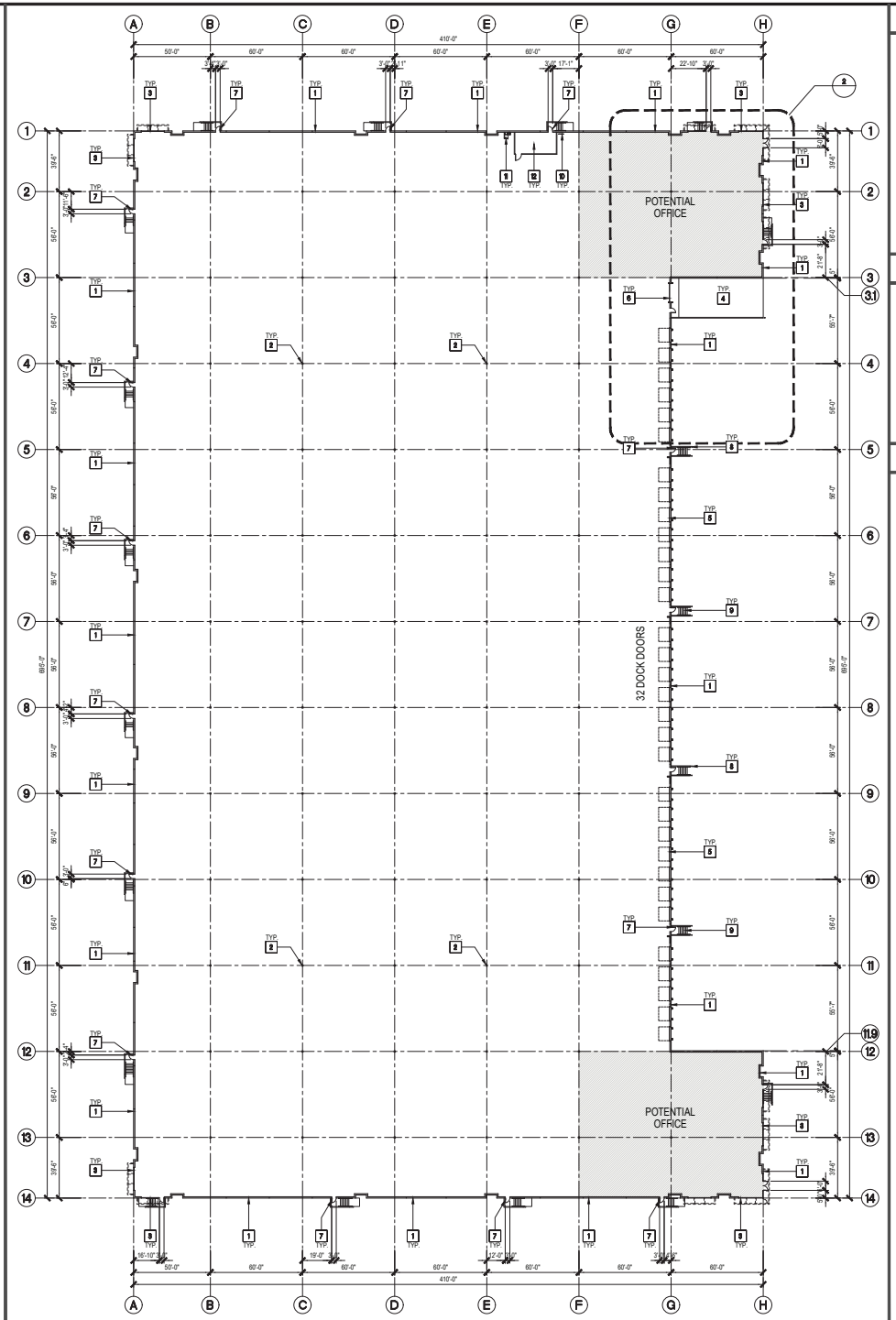


ENLARGED FLOOR PLAN

TRUE NORTH

SCALE 1/8" = 1'-0"

2



OVERALL FLOOR PLAN

TRUE NORTH

SCALE 1" = 30'-0"

1

GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR SLAB ON GRADE FINISH FLOOR ELEVATION ANY DIRECTION OF SLOPE IF ANY.
2. SLOPE POUR STRIP $\frac{1}{2}$" TO EXTERIOR AT ALL MAN DOORS AND DOCK DOORS. SEE STRUCTURAL DRAWINGS FOR POUR STRIP LOCATIONS.
3. ALL DIMENSIONS ARE TO FACE OF CONCRETE PANEL WALL, GRID LINE OR FACE OF STUD UNLESS NOTED OTHERWISE.
4. REFER TO CIVIL DRAWINGS FOR POINT CONNECTION TO OFF-SITE UTILITIES AND CONTRACTOR TO VERIFY ACTUAL UTILITY LOCATIONS.
5. CONTRACTOR TO PROTECT AND KEEP FLOOR SLAB CLEAN. ALL EQUIPMENT TO BE DIAPERED INCLUDING CARS AND TRUCKS TO PREVENT OIL SPILLS.
6. CONCRETE SLAB TO HAVE STEEL FLOAT TROWEL BURNISHED FINISH.
7. ALL FLOOR SLAB NAIL OR BRACE FRAME HOLES SHALL BE FILLED WITH APPROVED 2 PART EPOXY COMPOUND TO MATCH CONCRETE COLOR.
8. PROVIDE MM-EP-90 AT CONTROL/EXPANSION JOINTS AT THE SPEEDBAY ONLY.

PAINT NOTES

1. INTERIOR CONCRETE WALL: SINGLE COAT OF ACRYLIC PAINT ON INTERIOR WALLS. SHERWIN WILLIAMS, "SNOWBOUND" SW 7004 - FLAT SHEEN.
2. ALL STRUCTURAL STEEL MEMBER INCLUDING COLUMNS, LEDGERS, JOISTS, GIRDERS SHALL RECEIVE LIGHT GRAY SHOP PRIMER. ANY FIELD WELDS SHALL BE TOUCHED UP TO MATCH SHOP PRIMER.
3. STRUCTURAL COLUMNS SHALL, SHALL RECEIVE A COAT OF OSHA YELLOW SAFETY WARNING COLOR, PAINT UP TO 12' ABOVE FINISH FLOOR.
4. ARCHITECTURAL COATINGS REQUIRE USE OF HVLP SPRAYING EQUIPMENT OR MINIMUM TRANSFER RATE OF AT LEAST 50% OR MANUAL APPLICATION TECHNIQUE.
5. PAINT SHALL BE OF "SUPER COMPLIANT" LOW VOC PER SCAQMD RULE 1113.

KEYNOTES

1. CONCRETE TILT UP PANEL.
2. STRUCTURAL STEEL BUILDING COLUMN
3. STOREFRONT SYSTEM AND GLAZING SEE ELEVATION FOR SPECIFICATION
4. CONCRETE RAMP WITH 42" H CONC. TILT UP GUARD WALL OR BUILDING WALL
5. 9'X10' X 24 GA OVER HEAD ROLL UP DOOR, COUNTER BALANCED WITH 24" X 6" VISION PANEL. STANDARD GRADE WITH WHITE FACTORY FINISH
6. 12'X14' X 24 GA OVER HEAD ROLL UP DOOR, COUNTER BALANCED WITH 24" X 6"VISION PANEL STANDARD GRADE WITH WHITE FACTORY FINISH.
7. 3'X7' HOLLOW METAL DOOR AND FRAME.
8. PROTECTIVE BOLLARD
9. CONCRETE STAIR
10. LONG TERM INTERIOR BICYCLE RACK
11. ROOF ACCESS LADDER
12. ELECTRICAL ROOM

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No.	ISSUANCE	DATE

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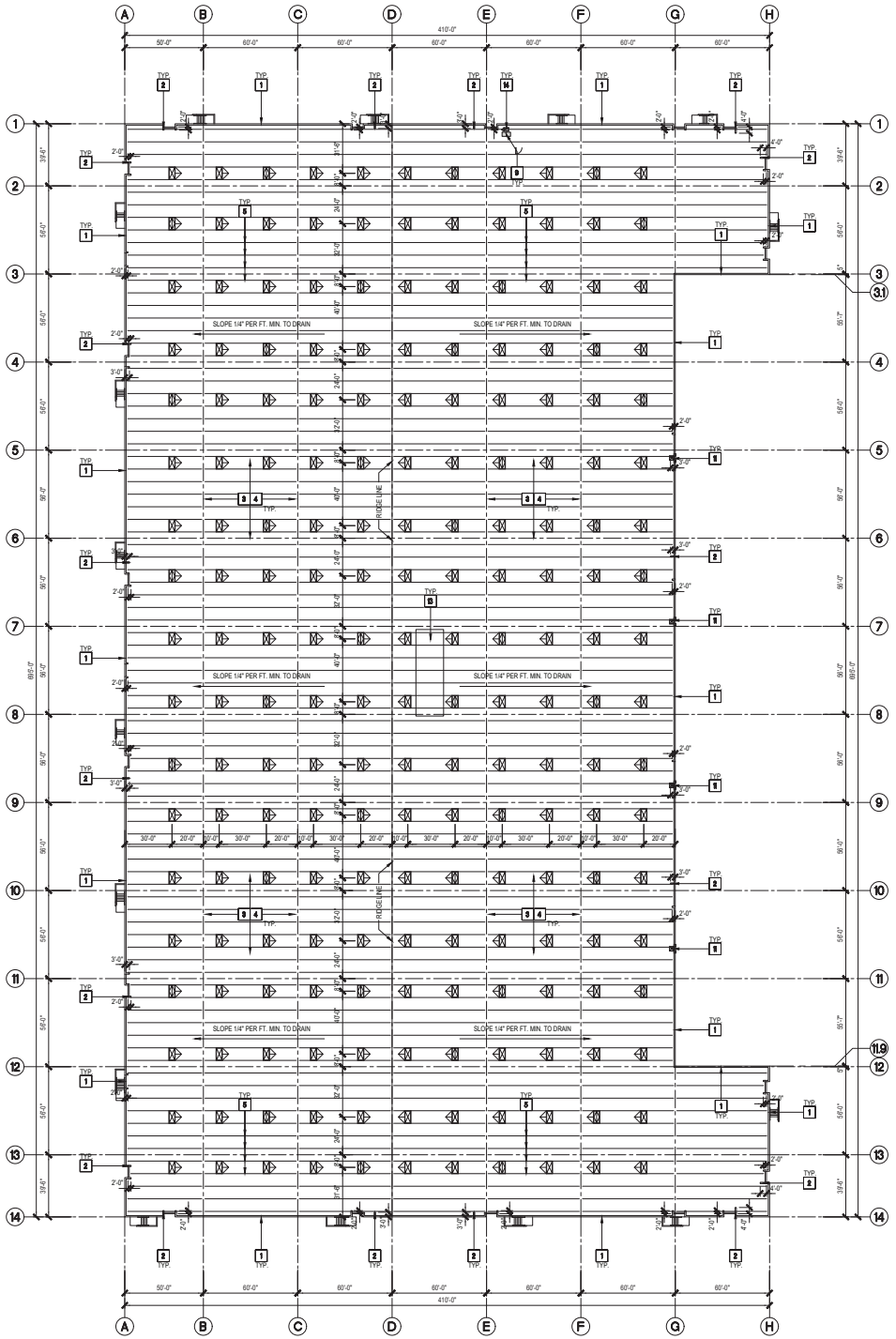
DRAWN STEVE HONG
CHECKED STEVE HONG

SHEET TITLE
ARCHITECTURAL
OVERALL FLOOR PLAN

SHEET NUMBER
DRC-A2.01

Plot Date: 9/7/2023 - 09:00 PM Last Save By: Eric Wynamh Login: Steve Hong L:\Projects\Core5\22-178 Core5 Menifee Sherman And Ethanac\03 - Design\01 - Entitlements And CD\DRC-A2.01.dwg



GENERAL NOTES

1. VERIFY THAT ALL AREAS HAVE A POSITIVE ¼" PER FOOT MIN DRAINAGE PRIOR TO INSTALLATION UNLESS NOTED BY THE STRUCTURAL DRAWINGS
2. COORDINATE WITH STRUCTURAL DRAWINGS FOR ROOF ELEVATIONS.
3. CONTRACTOR SHALL VERIFY ALL MECHANICAL UNIT LOCATIONS, CURBS AND HOOK UPS WITH SUBCONTRACTORS, MECHANICAL / STRUCTURAL ENGINEERS AND ARCHITECT PRIOR TO INSTALLATION.
4. BEFORE SETTING AND ANCHORING OF ANY ROOF MOUNTED EQUIPMENT. CONTRACTOR TO CHECK IF SUCH EQUIPMENT ARE VISIBLE FROM PUBLIC WAY. ALERT THE ARCHITECT IF VISIBLE
5. PROVIDE INVERTED CAP SHEET CRICKETS ALONG UPPER SLOPE OF ALL SKYLIGHTS, MECHANICAL EQUIPMENT UNITS AND OTHER OPENINGS TO FACILITATE POSITIVE DRAINAGE.
6. WHEN REQUIRED BY LOCAL JURISDICTION AND PRIOR TO TRUSS INSTALLATION, TRUSS MANUFACTURE TO SUBMIT PLANS TO BUILDING DEPARTMENT FOR APPROVAL.
7. CONTRACTOR SHALL INSURE PRIOR JOB-SITE STORAGE OF MATERIALS TO MINIMIZE EXPOSURE TO MOISTURE DURING THE CONSTRUCTION CYCLE.
8. CONTRACTOR TO VERIFY ALL ROOF DEPRESSIONS PER STRUCTURAL DRAWINGS.
9. REFER TO PLUMBING DRAWINGS FOR ROOF DRAIN AND SIZING.
10. ALL ROOF FASTENERS SHALL MEET ALL LOCAL CODE AND REGULATIONS AND REQUIREMENTS. PRIOR REQUIREMENTS ARE IN PROJECT JURISDICTION AND ALSO FACTORY MUTUAL WIND UPLIFT PRESSURE REQUIREMENTS.
11. WHEN APPLICABLE, FUSEABLE LINKS FOR SMOKE VENTS SHALL BE ONE TEMPERATURE RANGE HIGHER THAN THE ESFR SPRINKLER SYSTEM.
12. WHEN APPLICABLE, SMOKE VENTS SHALL BE REQUIRED IF AREAS FOR "POTENTIAL OFFICES" WILL BE USED FOR HIGH PILE COMBUSTIBLE STORAGE.
13. ROOF DRAINS, OVERFLOW DRAINS AND RAINWATER PIPING WITHIN THE INTERIOR OF THE BUILDING SHALL BE TESTED IN ACCORDANCE WITH THE PROVISIONS OF THE PLUMBING CODE FOR TESTING DRAIN, WASTE, AND VENT SYSTEMS.
14. ROOF DRAINS, OVERFLOW DRAINS AND PIPING WITHIN THE BUILDING SHALL UTILIZE APPROVED DRAINAGE FITTINGS.
15. MANUFACTURE ROOF DRAINS AND OVERFLOWS SHALL BE IAPMO LISTED.
16. REFER TO 5/A0.20 FOR MINIMUM CLEARANCE REQUIREMENT.
17. AT THE END OF CONSTRUCTION, CLEAR ALL CONSTRUCTION DEBRIS ON ROOF AND AROUND ROOF DRAINS AND SCUPPERS

KEYNOTES

1	CONCRETE PARAPET WALL PER STRUCTURAL. PAINT INSIDE FACE AND TOP OF PARAPET WALL WITH DOMINANT BUILDING COLOR WITH ELASTOMERIC PAINT. TOP OF PARAPET SHALL BE SACKED SMOOTH.
2	CONCRETE PARAPET RETURN
3	4 PLY, CLASS "A" BUILT UP ROOFING. JOHNS MANVILLE 4GNC OR EQUAL. PROVIDE 15 YEAR NO DOLLAR WARRANTY WITH 20 YEAR ALTERNATE.
4	WHITE SCRIM UNDER ROOF DECK
5	STRUCTURAL JOIST/GIRDER BELOW
6	EXHAUST FAN PER MECHANICAL.
7	MECHANICAL ROOF TOP EQUIPMENT PER MECHANICAL/STRUCTURAL.
8	PLUMBING VENT PIPE PER PLUMBING.
9	5' WIDE WALK PAD, JOHNS MANVILLE DYNATRED OR EQ.
10	EXTERIOR DOWN SPOUT AND OVERFLOW SCUPPERS.
11	INTERIOR ROOF DRAIN AND OVERFLOW SCUPPERS.
12	INTERIOR ROOF DRAIN AND OVERFLOW DRAIN.
13	ROOF ADDRESS NUMBER, 4"H TEXT, BLACK STENCIL
14	30" X 54" ACCESS ROOF HATCH WITH 42" BUILT IN GUARD RAIL.

LEGEND

4'X8' CURB MOUNTED SKYLIGHTS ICC ESR 3177.
BRISTOLITE T4896-SS-CM-1-HS1 OR EQUAL

SOLAR READY AREA, SEE SOLAR READY CALCULATION BELOW

SKYLIGHT & SMOKE HATCH

ROOF AREA:	254,480 S.F. 36' CLEAR MIN FROM 1ST COLUMN LINE + 6'
SMOKE HATCH PROVIDED:	0.5% - 1,280 S.F. (40 EACH)
SKYLIGHTS PROVIDED:	2.0% - 5,056 S.F. (158 EACH)
TOTAL:	2.5% - 6,336 S.F. (198 EACH)
BURGLAR BARS REQUIRED:	YES

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22-178
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SHEET TITLE
ARCHITECTURAL
OVERALL ROOF PLAN

SHEET NUMBER
DRC-A2.10

OVERALL ROOF PLAN

TRUE NORTH

SCALE
1" = 30'-0"

1

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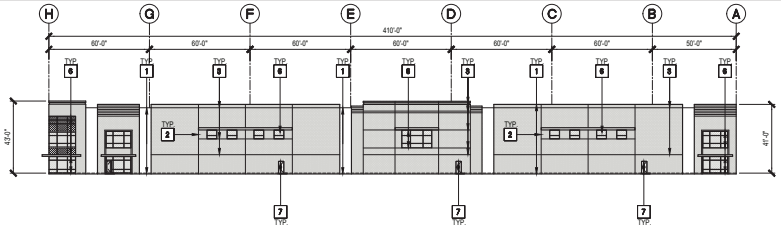
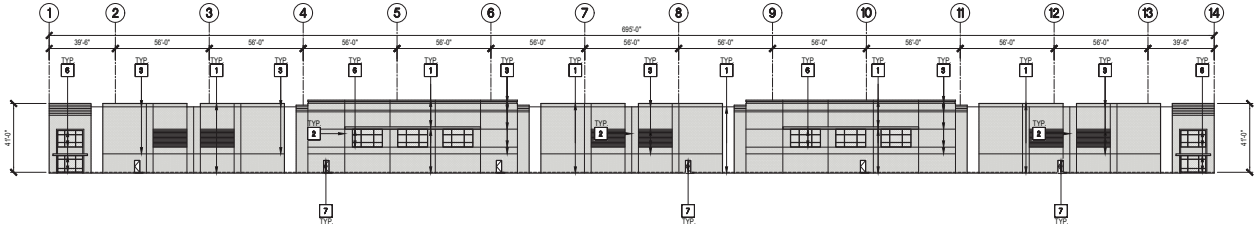
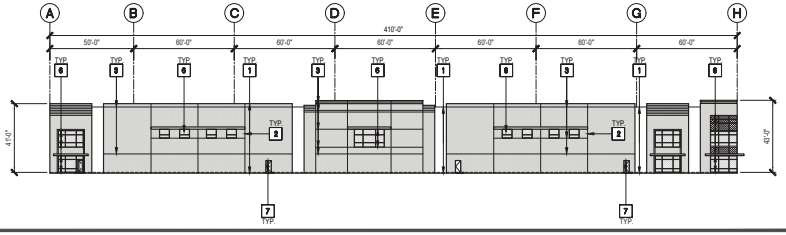


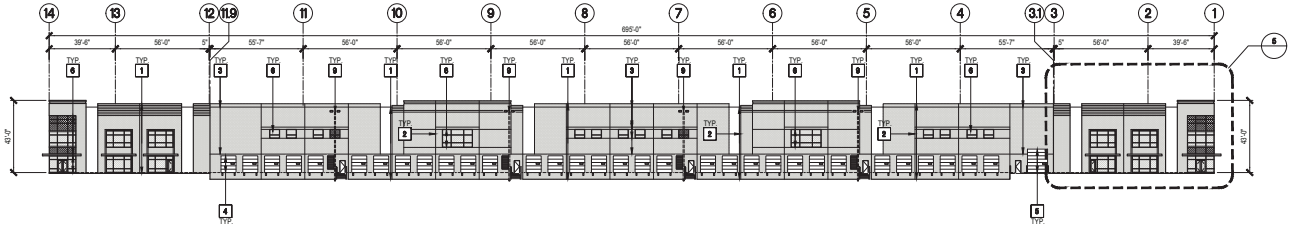
NORTH ELEVATION — SCALE 1" = 30'-0" — 1



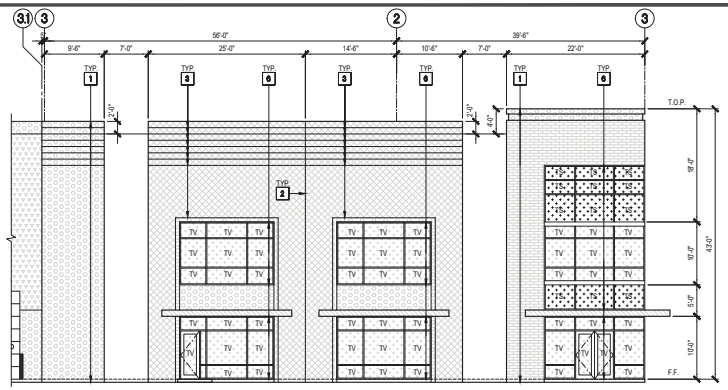
WEST ELEVATION — SCALE 1" = 30'-0" — 2



SOUTH ELEVATION — SCALE 1" = 30'-0" — 3



EAST ELEVATION — SCALE 1" = 30'-0" — 4



ENLARGED EAST ELEVATION — SCALE 1/8" = 1'-0" — 5

GENERAL NOTES

1. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED OTHERWISE.
2. ALL PAINT FINISHES ARE TO BE FLAT UNLESS NOTED OTHERWISE.
3. STOREFRONT CONSTRUCTION: GLASS, METAL ATTACHMENTS AND LINTELS SHALL BE DESIGNED TO RESIST WIND EXPOSURE "C" WINDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.
4. CONTRACTOR SHALL FULL PAINT ONE CONCRETE PANEL WITH SELECTED COLORS. ARCHITECT AND OWNER SHALL APPROVE PRIOR TO PAINT REMAINDER OF BUILDING.
5. BACK SIDE OF PARAPETS TO HAVE SMOOTH FINISH AND BE PAINTED WITH ELASTOMERIC PAINT.
6. FOR SPANDREL GLAZING, ALLOW SPACE BEHIND SPANDREL TO BREATH BY PROVIDING A MINIMUM $\frac{1}{4}$" DIAMETER HOLE ON THE CORNER.
7. USE ADHESIVE BACK WOOD STRIPS FOR ALL REVEAL FORMS.
8. FIRST COAT OF PAINT TO BE ROLLED-ON AND THE SECOND COAT TO BE SPRAYED ON.
9. WATER BLAST EXTERIOR FACE OF BUILDING WALLS PRIOR TO PAINT.
10. ALL CONCRETE PANEL JOINTS SHALL BE CLEARED OF DEBRIS BY PRESSURING WASHING THE CAVITY AND GRIND ANY SHARP EDGES PRIOR TO APPLY PANEL CAULK JOINT.
11. ALL EXTERIOR DOORS AND LOUVERS SHALL BE FABRICATED AND WEATHER STRIPPED TO WITHSTAND WIND EXPOSURE "C"
12. CONTRACTOR TO PROVIDE MOCK UP PAINT FOR OWNER AND ARCHITECT'S APPROVAL PRIOR TO COMMENCING THE WORK.

KEYNOTES

1. CONCRETE TILT UP WALL, SEE PAINT AND FINISH LEGEND BELOW
2. CONCRETE PANEL JOINT
3. PAINTED CONCRETE REVEAL.
4. 9' X 10' OVER HEAD DOCK HIGH DOOR
5. 12' X 14' OVER HEAD GRADE LEVEL DOOR
6. ALUMINUM STOREFRONT GLAZING SYSTEM. SEE GLAZING LEGEND
7. 3'X7' HOLLOW METAL DOOR AND FRAME.
8. 4'X8' PAINTED METAL LOUVER
9. ROOF DRAIN

GLAZING LEGEND

BLUE TEMPERED VISION GLASS

BLUE TEMPERED CONCRETE BACKED SPANDREL GLASS

OFFICE / POTENTIAL OFFICE AREAS:
VITROGLAZING, VISTACOOL (2) PACIFICA + SOLARBAN 60 (3)
VLT: 26, SHGC: 0.17, U VALUE: 0.29
1" INSULATED UNIT WITH $\frac{1}{4}$" AIRSPACE AND (2) $\frac{1}{4}$" UNITS

WAREHOUSE GLAZING AREA:
SINGLE PANE $\frac{1}{4}$" VITROGLAZING VISTALCOOL PACIFICA.

COLOR / FINISH LEGEND

PAINTED CONCRETE SHERWIN-WILLIAMS
SW SNOWBOUND SW7004

PAINTED CONCRETE SHERWIN-WILLIAMS
SW AESTHIC WHITE SW7035

PAINTED CONCRETE SHERWIN-WILLIAMS
SW TAUPE TONE SW7633

PAINTED CONCRETE SHERWIN-WILLIAMS
SW SOFTWARE 7074

CORONADO STONE ELEMENT
LEDGESTONE - MOUNT VERNON

CANOPY: RAYNOBOND COLORWELD
300 NATURAL BRUSHED
ALUMINUM GRAY

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SUITE 880 IRVINE CA 92618

No.	ISSUANCE	DATE

JOB No.
22-178
DRAWN STEVE HONG
CHECKED STEVE HONG

SHEET TITLE
ARCHITECTURAL
ELEVATIONS

SHEET NUMBER
DRC-A3.01

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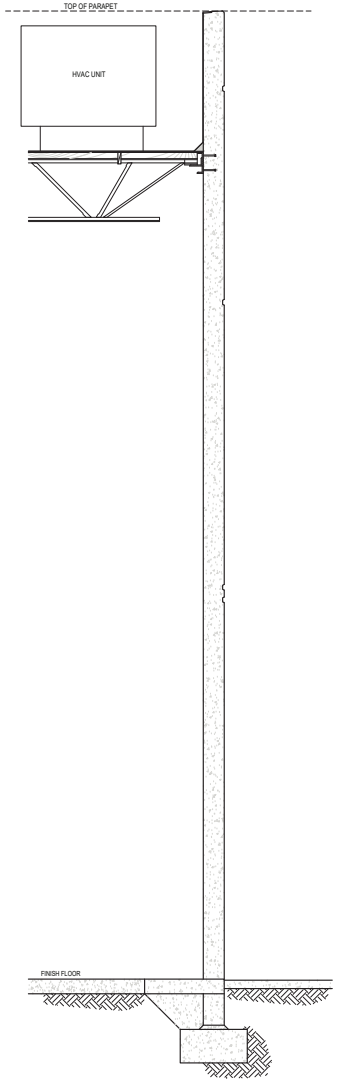

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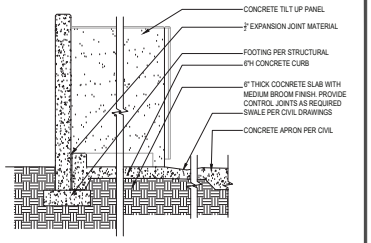
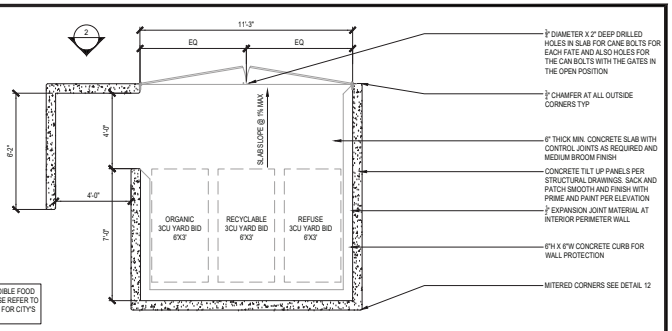


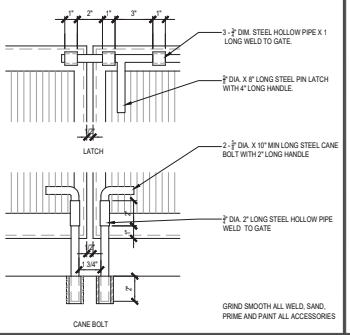
REFER TO SOIL'S REPORT FOR SLAB PREPARATION AND REINFORCEMENT FOR SLAB AS REQUIRED

TRASH ENCLOSURE SECTION | SCALE 3/8"=1'-0" | 5



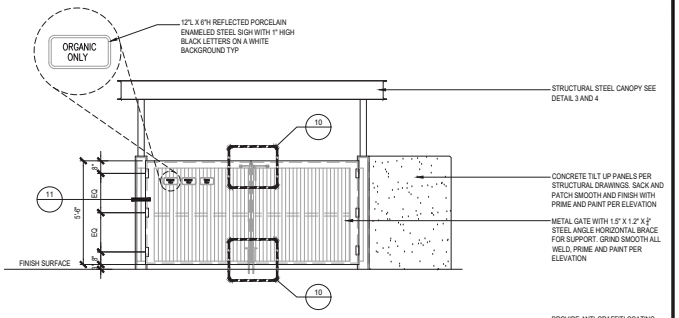
FOR COMMERCIAL EDIBLE FOOD GENERATORS, PLEASE REFER TO SAMC SECTION 16-37 FOR CITY'S REQUIREMENT

CONCRETE TILT TRASH ENCLOSURE | SCALE 3/8"=1'-0" | 1



GRIND SMOOTH ALL WELD, SAND, PRIME AND PAINT ALL ACCESSORIES

LATCH AND CANE BOLT | SCALE 3"=1'-0" | 10



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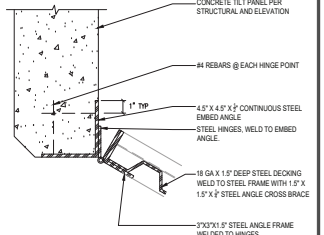
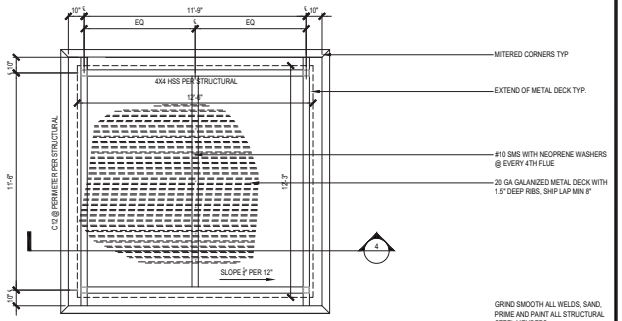


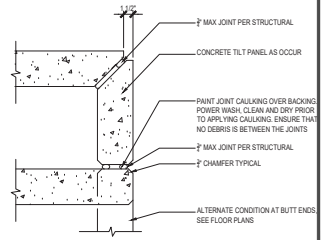
GRIND SMOOTH ALL WELDS, SAND, PRIME AND PAINT PER ELEVATION

HINGE AT GATE | SCALE 3"=1'-0" | 11



GRIND SMOOTH ALL WELDS, SAND, PRIME AND PAINT ALL STRUCTURAL STEEL MEMBERS

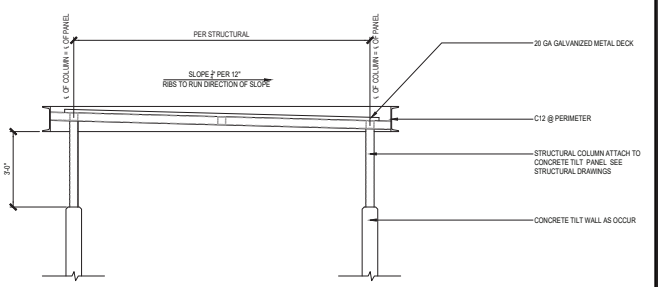
TRASH ENCLOSURE METAL CANOPY | SCALE 3/8"=1'-0" | 3



REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL DETAILS.

PROVIDE 3HR RATED PANEL CAULK JOINT WHERE AT ALL REQUIRED EXTERIOR WALLS AS NOTED ON THE FLOOR PLAN

CONC. TILT TYP. PANEL JOINT | SCALE 1 1/2"=1'-0" | 12



GRIND SMOOTH ALL WELDS, SAND, PRIME AND PAINT ALL STRUCTURAL STEEL MEMBERS PER ELEVATION

TRASH ENCLOSURE CANOPY SECTION | SCALE 1/2"=1'-0" | 4

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ETHANAC BUSINESS PARK BUILDING 1

TBD MENIFEE CA

CORE5 INDUSTRIAL PARTNERS

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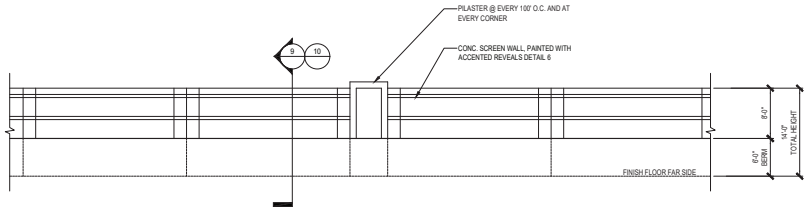
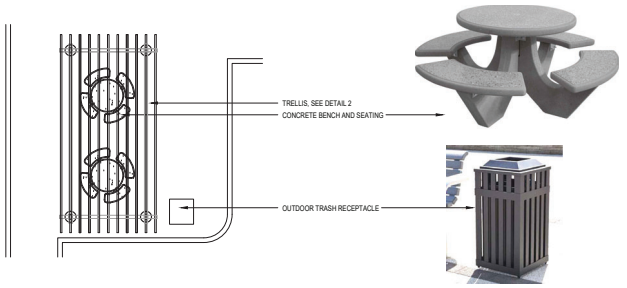


LANDSCAPE, TREES, HEDGES NOT SHOWN FOR CLARITY

SCREEN WALL ELEVATION (PUBLIC STREET VIEW) | SCALE 1/8"=1'-0" | 5



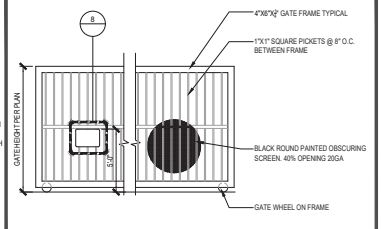
BREAK AREA | SCALE 3/16"=1'-0" | 1

CAUTION

USE OF GATE UNDER WINDY CONDITIONS IS PROHIBITED LEAVE GATE LOCKED OPEN OR LOCKED CLOSED

SIGN SHALL BE PERMANENTLY AFFIXED REFLECTORIZED SIGN OF PORCELAIN ON STEEL WITH BEADED TEXT AT HEIGHT OF 60" ABOVE FINISH GRADE TO TOP OF SIGN. SIGN SHALL BE AFFIXED ON THE BOTH SIDES OF THE GATE AND AT EACH PAIR WHERE APPLICABLE.

GATE SIGN | SCALE NTS | 8



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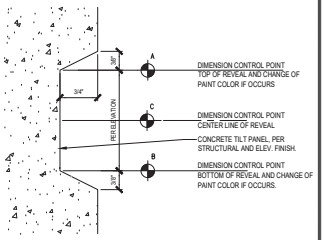

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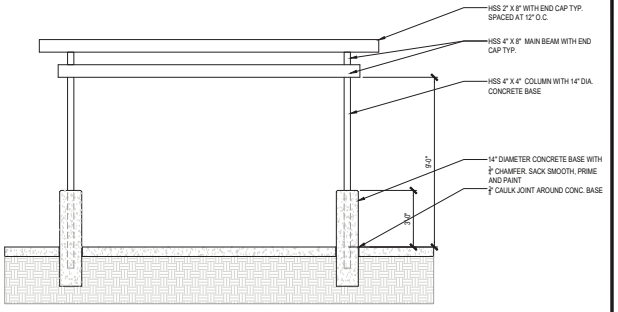
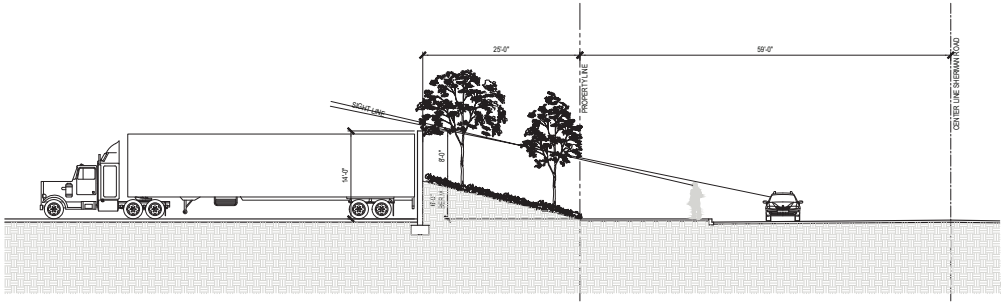


TRELLIS CANOPY ELEVATION | SCALE NTS | 2



SCREEN WALL SECTION SHERMAN ROAD | SCALE 1/8"=1'-0" | 9

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ETHANAC BUSINESS PARK BUILDING 1

TBD MENIFEE CA

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ARCHITECTURAL
SCREEN WALL AND LINE OF SIGHT
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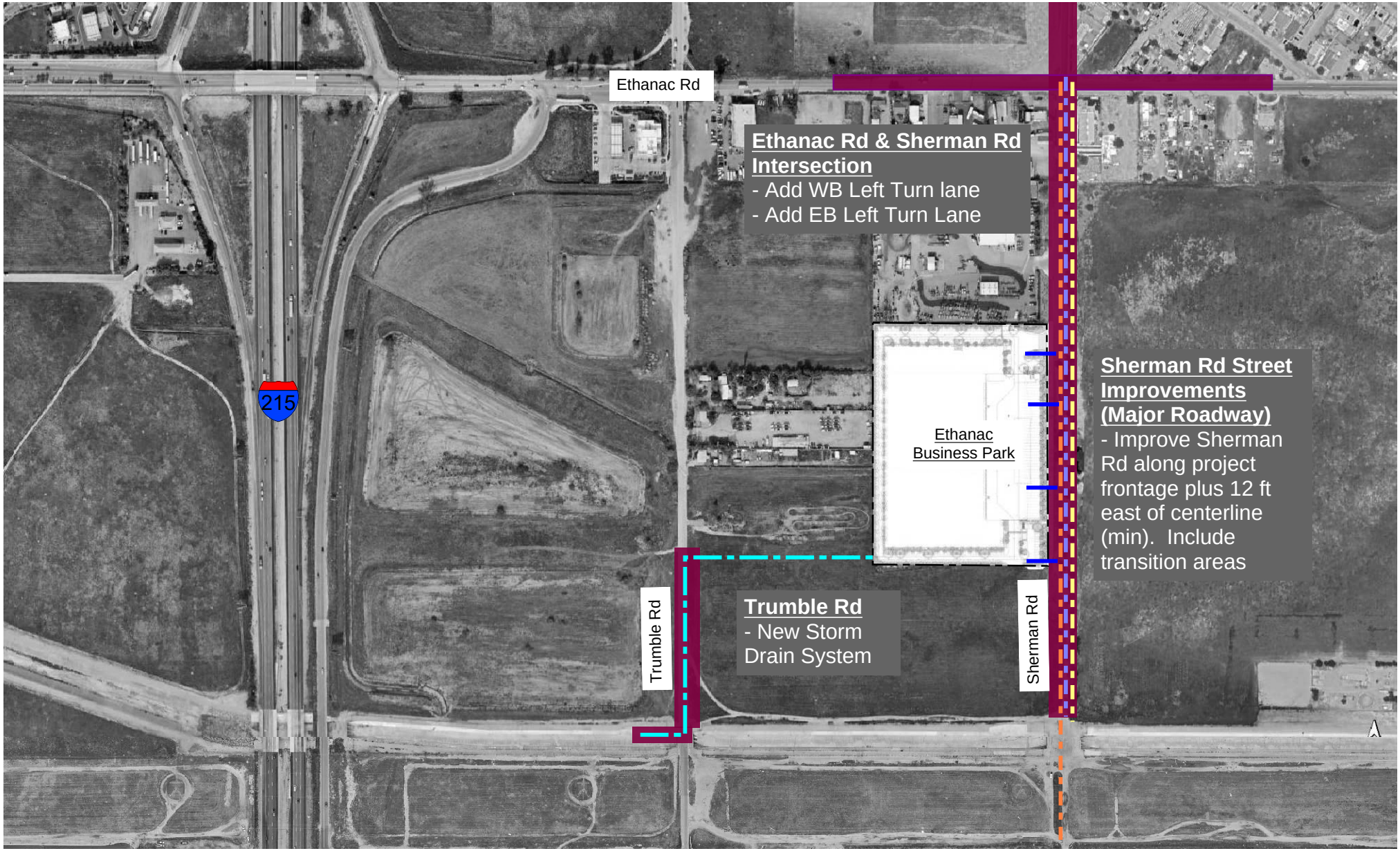
Off-site Improvements



Appendix C: Cultural Resources Assessment

Cultural and Paleontological Resources Assessment for the Ethanac Business Park Project, Menifee, Riverside County, California

CONFIDENTIAL

August 2024

Prepared By:

Jamie Nord, MA, RPA

Archaeologist

Kimley-Horn and Associates, Inc.

3801 University Avenue, Suite 300

Riverside, CA 92501

Kimley»Horn

EXECUTIVE SUMMARY

Kimley-Horn and Associates, Inc. (KHA) has been retained by the City of Menifee to complete a Cultural and Paleontological Resources Assessment for the proposed Ethanac Business Park Project in the City of Menifee, Riverside County, California. The proposed Project includes the construction of a new 264,710 square foot warehouse on a 11.47-acre property. The project is subject to environmental review and consideration pursuant to the California Environmental Quality Act (CEQA) with the City of Menifee acting as the Lead Agency. This report is intended to support the City's review and consideration of the Project and potential impacts it may have on the environment specifically as it relates to cultural and paleontological resources.

KHA archaeologists conducted a cultural resources records search at the Eastern Information Center (EIC) for the Project area plus a 1-mile buffer. The results of the record search were negative for previously recorded cultural resources within the Project area, and the results were positive for the 1-mile buffer surrounding the Project area. The 1-mile buffer contained 18 previously recorded cultural resources, consisting of six (6) precontact sites, three (3) multicomponent sites, and nine (9) historic-age sites. A pedestrian survey of the Project area was conducted by KHA archaeologists, and it was noted that extensive prior grading had occurred at the Project area. KHA archaeologists identified one (1) historic built environment resource during the field survey. The resource, KHA-ETH-24-01, consists of a historic-period, single-family residential building. At the request of KHA, the Native American Heritage Commission (NAHC) conducted a search of Sacred Lands Files (SLF) within the Project area and vicinity and indicated that the results were negative. A review of historic images and maps indicated that previous grading has occurred in the Project area, which apparently was undertaken prior to the ownership of the property by the project applicant. A paleontological records search was conducted through the Western Science Center, and the results indicated the geologic units underlying the Project area are mapped as alluvial deposits from the late to middle Pleistocene epoch, which are highly sensitive for paleontological resources. The City of Menifee's General Plan also identifies the area as having "High Sensitivity" for paleontological resources.

The locations of potential offsite improvements were provided in August 2024. Due to the closure of the EIC on July 1, 2024, an additional records search could not be conducted. The 1-mile buffer of the January 2024 records search entirely encompassed the areas slated for potential offsite improvements, and Kimley-Horn staff conducted additional research of those areas. During the research, staff identified a previously recorded cultural resource: P-33-028203. The cultural resource is a historic-age tree alignment on Sherman Road. Kimley-Horn staff conducted a second survey for the offsite improvements and relocated P-33-028203 during the survey.

Two cultural resources were identified within the Project area and offsite improvements as a result of the research and field survey. KHA-ETH-24-01 is a well-documented resource type with no distinctive architectural style or significant association to historical events or figures. Therefore, the resource KHA-ETH-24-01 did not meet any of the CRHR eligibility criteria. As such, this study does not recommend that the resource is eligible for listing in the CRHR and notes that it does not meet the definition of Historical

Resources or Unique Archaeological Resource under CEQA. P-33-028203 was previously recommended not eligible for the CRHR, and Kimley-Horn concurs with the evaluation.

Additionally, it is unlikely that undisturbed buried cultural resources are present within the Project area given the extent of prior grading. As such, no "Historical Resources" or "Unique Archaeological Resources", as defined by CEQA, are present within the Project area. It is recommended that the City's standard conditions of approval for cultural resources be included that outline the process for treatment of any cultural resources or human remains inadvertently discovered during Project implementation. The Project area is highly sensitive for paleontological resources. Therefore, mitigation measures are recommended for a Paleontological Resources Impact Mitigation Program, paleontological monitoring, and data recovery. With these conditions of approval and mitigation measures in place, impacts to cultural and paleontological resources would be less than significant.

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A: Record Search Results from the Eastern Information Center
B: Sacred Lands File Search Results from the Native American Heritage Commission
C: Paleontological Record Search Results from the Western Science Center
D: CA DPR 523 Forms

INTRODUCTION

Kimley-Horn and Associates, Inc. (KHA) has been retained by the City of Menifee to complete a Cultural and Paleontological Resources Assessment for the proposed Ethanac Business Park Project in the City, Riverside County, California. The project is subject to environmental review and consideration pursuant to the California Environmental Quality Act (CEQA) with the City acting as the Lead Agency. This report is intended to support the City's review and consideration of the Project and potential impacts it may have on the environment specifically as it relates to cultural and paleontological resources. Efforts conducted for this assessment include pedestrian survey of the Project area, cultural resources records search, Sacred Lands File (SLF) search, literature review, paleontological records search, review of cultural databases and repositories, and review of historic maps and imagery. This report presents the results of those inventory efforts, as well as recommended mitigation measures for the Project.

PROJECT DESCRIPTION

The proposed Project is located in the northern part of the City of Menifee and western Riverside County, California (Figure 1). The Project is generally located south of Ethanac Road, east of Trumble Road, west of Sherman Road, and North of McLaughlin Road on APN's 331-110-023, -038, and -039 (Figure 2). The proposed Project includes the construction of a new 264,710 square foot warehouse consisting of 254,710 square feet of warehouse area and 10,000 square feet of office area on a 11.47-acre site. The project applicant proposes 168 automobile parking spaces and 47 truck trailer parking stalls along with approximately 58,864 square feet of landscaping and associated offsite improvements (Figure 3).

REGULATORY SETTING

California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to all discretionary projects undertaken or subject to approval by the state's public agencies (California Code of Regulations 14(3), § 15002(i)). Under CEQA, Lead Agencies are required to consider the potential effects of a project on cultural and paleontological resources. While paleontological resources are easy to define, the definition of cultural resources and, furthermore, a "historical resource" and "unique archaeological resource", required additional consideration by the State.

Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines) section 15064.5(a) defines a "historical resource" as a resource that meets one or more of the following criteria:

- Listed in, or eligible for listing in, the California Register of Historical Resources (California Register)
- Listed in a local register of historical resources (as defined at Cal. Public Res. Code § 5020.1(k))
- Identified as significant in a historical resource survey meeting the requirements of § 5024.1(g) of the Cal. Public Res. Code
- Determined to be a historical resource by a project's lead agency (Cal. Code Regs. Tit. 14(3), § 15064.5(a))

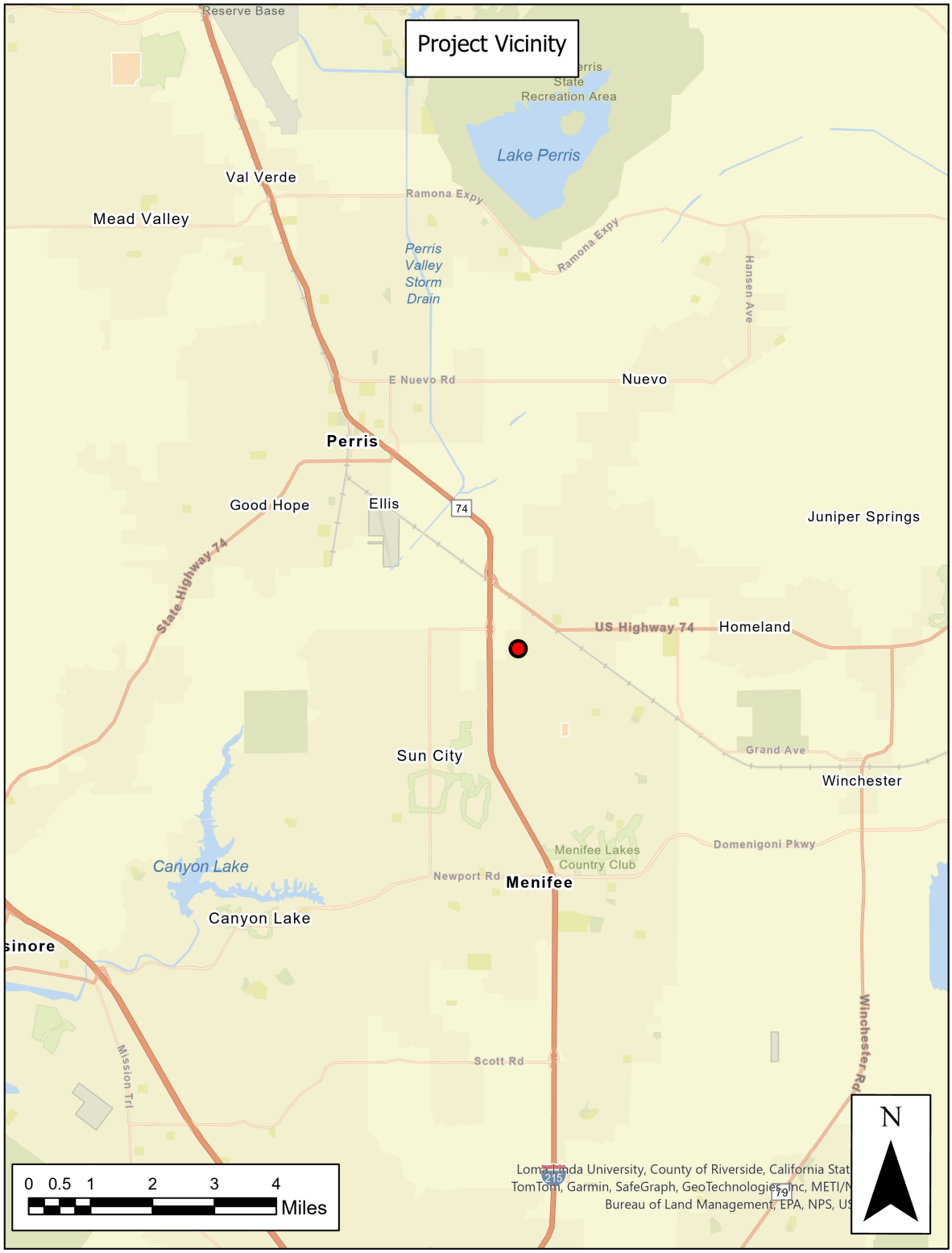

Figure 1: Project Vicinity Map

Figure 2: Project Area Map

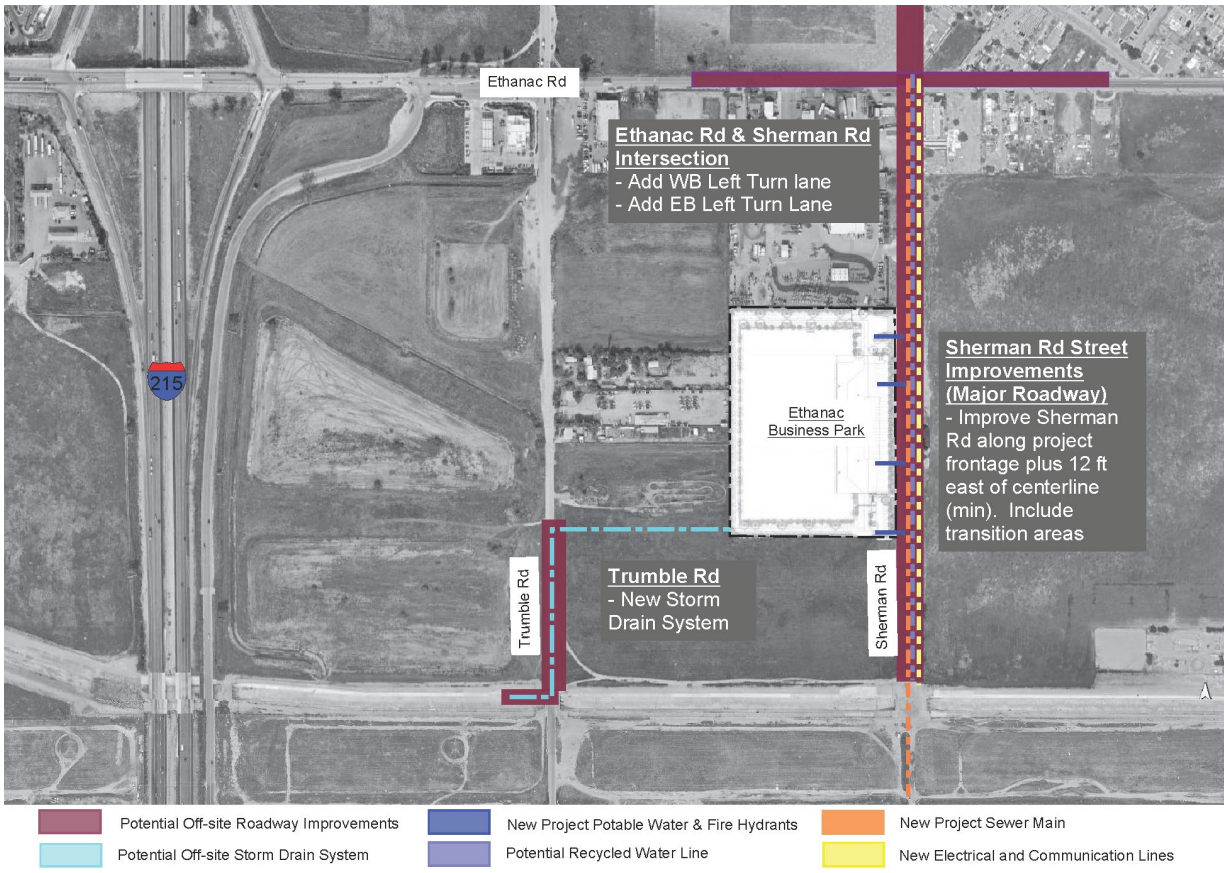

Figure 3: Offsite Improvements Map

A historical resource consists of "Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California…Generally, a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing in the California Register of Historical Resources" (Cal. Code Regs. Tit. 14(3), § 15064.5(a)(3)). The significance of a historical resource is impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for the California Register. If an impact on a historical or archaeological resource is significant, CEQA requires feasible measures to minimize the impact (State CEQA Guidelines § 15126.4 (a)(1)). Mitigation of significant impacts must lessen or eliminate the physical impact that the project will have on the resource. Section 5024.1 of the Cal. Public Res. Code established the California Register. Generally, a resource is considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register (Cal. Code Regs. tit. 14(3), § 15064.5(a)(3)).

Finally, CEQA requires that significant effects on unique archaeological resources be considered and addressed. CEQA defines a unique archaeological resource as any archaeological artifact, object, or site

about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

CEQA Guidelines Section 15064.5 Appendix G includes significance criteria relative to archaeological and historical resources. These have been utilized as thresholds of significance here, and a project would have a significant environmental impact if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in section 10564.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 10564.5;
- Disturb any human remains, include those interred outside of formal cemeteries.

In accordance with Appendix G prior to the changes in 2018, cultural and paleontological were both considered under the Cultural Resources section. However, with the changes to the CEQA Guidelines in 2018, paleontological resources are now discussed in environmental documents under the Geology & Soils section of the Appendix G checklist.

California Public Resources Code

California Public Resources Code (PRC) § 5024.1 establishes the California Register of Historical Resources (CRHR). The register lists all California properties considered to be significant historical resources. The CRHR also includes all properties listed or determined eligible for listing in the NRHP, including properties evaluated and determined eligible under § 106.

California Public Resources Code (PRC) § 5020 to 5029.5 continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The commission oversees the administration of the California Register of Historical Resources and is responsible for designating State Historical Landmarks and Historical Points of Interest.

California Public Resources Code (PRC) § 5079 to 5079.65 define the functions and duties of the Office of Historic Preservation, which administers federal- and state-mandated historic preservation programs in California as well as the California Heritage Fund.

California Public Resources Code (PRC) § 5097.5 and § 30244 includes requirements for paleontological resource management. These statutes prohibit the removal, without permission, or the destruction, damage, etc. of any cultural or paleontological site or feature from lands under the jurisdiction of the state or any city, county, district, authority, or public corporation, or any agency thereof. Consequently,

local agencies are required to comply with PRC Section 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others. PRC Section 5097.5 also establishes the removal of these resources as a misdemeanor and requires reasonable mitigation of adverse impacts to these resources from developments on public (state, county, city, and district) lands.

California Public Resources Code (PRC) § 5097.9 to 5097.991 provide protection to Native American historical and cultural resources and sacred sites; identify the powers and duties of the Native American Heritage Commission (NAHC); require that descendants be notified when Native American human remains are discovered; and provide for treatment and disposition of human remains and associated grave goods.

California Health and Safety Code

California Health and Safety Code § 7050.5-7055 govern the process for reporting inadvertent discoveries of human remains to the County Coroner; the process for the County Coroner to report human remains of Native American descent to the Native American Heritage Commission (NAHC); and the protections offered against removal or desecration of human remains.

California Code of Regulations

The California Code of Regulations govern the nomination of resources to the California Register of Historical Resources (CRHR) (14 California Code of Regulations [CCR] § 4850). The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

California Register of Historical Resources (CRHR)

The State Historical Resources Commission has designed this program for use by state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. The California Register of Historic Resources (CRHR) is the authoritative guide to the state's significant historical and archeological resources.

The California Register of Historic Resources (CRHR) program encourages public recognition and protection of resources of architectural, historical, archeological, and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under the California Environmental Quality Act (CEQA). To be eligible for listing in the CRHR, a resource must meet at least one of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
- Is associated with the lives of persons important to local, California, or national history.
- Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values.

- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance. Alterations to a resource or changes in its use over time may change its historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data.

Isolated finds, such as a single artifact with no other associated cultural materials, are generally considered to be ineligible for listing in the CRHR. However, the nature of the isolated resource and any available ethnographic data regarding affiliated Native American populations should be carefully considered during the evaluation process, particularly as it relates to potential eligibility under Criterion 4.

California Historical Landmarks

California Historical Landmarks are buildings, structures, sites, or places that have been determined to have statewide historical significance. The resource must be approved for designation by the County Board of Supervisors or the City/Town Council in whose jurisdiction it is located; be recommended by the State Historical Resources Commission; and be officially designated by the Director of California State Parks. A resource must meet at least one of these following criteria:

- Be the first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California).
- Be associated with an individual or group having a profound influence on the history of California.
- Be a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historical resource may be designated as both a landmark and a point. If a point is subsequently granted status as a landmark, the point designation is retired. To be eligible for designation as a Point of Historical Interest, a resource must meet at least one of the following criteria:

- Be the first, last, only, or most significant of its type within the local geographic region (city or county).
- Be associated with an individual or group having a profound influence on the history of the local area.
- Be a prototype of, or an outstanding example of, a period, style, architectural movement or construction or be one of the more notable works or the best surviving work in the local region of a pioneer architect, designer or master builder.

California Historic Building Code

The California Historic Building Code—California Code of Regulations, Title 24, Part 8—provides regulations for the preservation, restoration, rehabilitation, relocation, or reconstruction of buildings or properties designated as qualified historical buildings or properties. The California Historic Building Code is intended to provide solutions for the preservation of qualified historical buildings or properties, to promote sustainability, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of the occupants or users.

City of Menifee

The protection and preservation of cultural and paleontological resources within the City of Menifee are addressed in the City's General Plan (GP) within the Open Space and Conservation (OSC) Element (City of Menifee 2013) and the Draft Environmental Impact Report (EIR) (The Planning Center 2013) prepared for the adoption and implementation of the GP. According to the GP, "paleontological and cultural resources are important for scientific, historic, and/or religious reasons to cultures, communities, groups, or individuals." As such, the City has established the goal, policies, and guidance for implementation to protect these resources. However, it is important to note that the specific policies listed within the GP, as noted below, focus on cultural resources, though their application to paleontological resources is implied. Furthermore, the GP includes a map that identifies paleontological resource sensitivity to directly address the paleontological resource category (Figure 4).

Goal OSC-5: Archaeological, historical, and cultural resources are protected and integrated into the city's built environment.

Policy OSC-5.1: Preserve and protect archaeological and historic resources and cultural sites, places, districts, structures, landforms, objects, and native burial sites, traditional cultural landscapes and other features, consistent with State law and any laws, regulations or policies which may be adopted by the city to implement this goal and associated policies.

Policy OSC-5.2: Work with local schools, organizations, appropriate Native American tribes with ancestral territories located within the city and other agencies to educate the public about the rich archaeological, historic, and cultural resources found in the city.

Policy OCS-5.3: Preserve sacred sites identified in consultation with the appropriate Native American tribes whose ancestral territories are within the city, such as Native American burial locations, by avoiding

activities that would negatively impact the sites, while maintaining the confidentiality of the location and nature of the sacred site.

Policy OSC-5.4: Establish clear and responsible policies and best practices to identify, evaluate, and protect previously unknown archaeological, historic, and cultural resources, following applicable CEQA and NEPA procedures and in consultation with the appropriate Native American tribes who have ancestral lands within the city.

Policy OSC-5.5: Develop clear policies regarding the preservation and avoidance of cultural resources located within the city, in consultation with the appropriate Native American tribes who have ancestral lands within the city.

Policy OCS-5.6: Develop strong government-to-government relationships and consultation protocols with the appropriate Native American tribes with ancestral territories within the city in order to ensure better identification, protection and preservation of cultural resources, while also developing appropriate educational programs, with tribal participation, for Menifee residents.

ENVIRONMENTAL SETTING

The Project area is located between the Perris Valley and Menifee Valley in western Riverside County. The San Jacinto River flows 3 miles to the west and offers the nearest natural water source, though it is now channelized. This region enjoys a semiarid and Mediterranean climate with seasonal precipitation. No native vegetation currently inhabits the Project area, but this vicinity once supported diverse plant communities, such as native chaparral and coastal sage scrub. The Project area and vicinity likely once supported floral resources that were important to Native Americans for procuring food or materials for medicine and tools. This area is characterized as a lower Sonoran Life Zone. Natural topography of the Project area and vicinity consists of an alluvial fan with 0-5% slope. While the Project area is relatively flat, the City of Menifee is situated near many prominent hillsides, and its dynamic topography is one of its most identifiable features. The City of Menifee's General Plan identified the area as "High Sensitivity" for paleontological resources (Figure 4; City of Menifee 2024). The local hills provide bedrock outcrops, which were used by Native Americans for shelter, food processing, and rock art. However, no such geologic features are located in the immediate vicinity. Native soil composition at the Project area is comprised of Monserate sandy loam (SoilWeb 2024). The Project area is not located in proximity to any geologic fault lines (U.S. Geological Survey 2024). Geologic maps of the Romoland 7.5' quadrangle indicate that the Project area is underlaid by late to middle Pleistocene alluvial fan deposits. In some places, thin alluvial fan deposits of Holocene age may also be present (Morton 2003).

CULTURAL AND HISTORICAL SETTING

Ethnography and Prehistory

The City of Menifee is situated in the traditional lands of Luiseño and the peripheries of Cahuilla lands. The Spanish word Luiseño is derived from the Mission San Luis Rey de Francia. The Luiseño were seminomadic or sedentary, hunter-gatherer communities that occupied politically autonomous villages

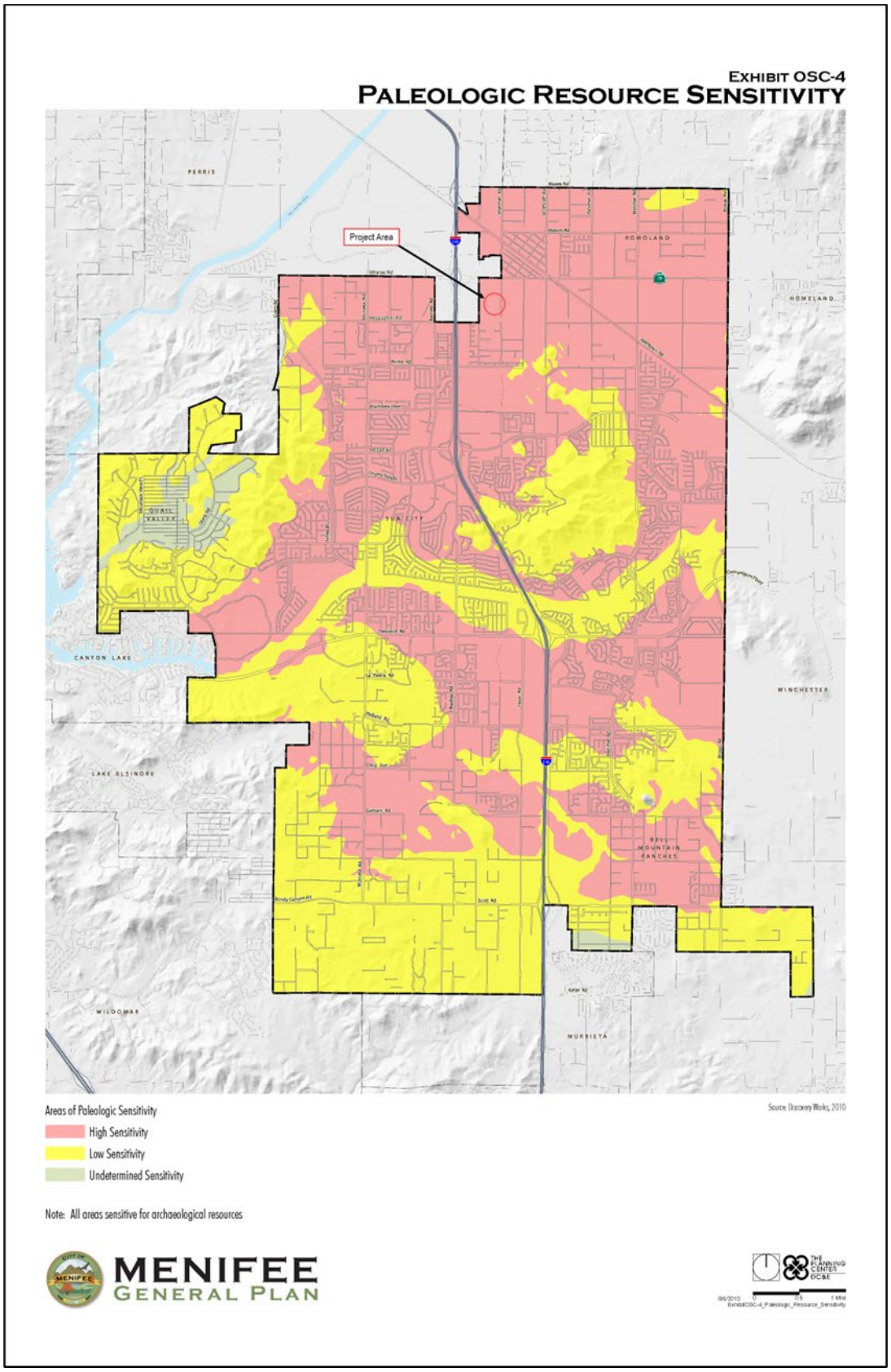

Figure 4: Project Area within the City of Menifee Paleontological Sensitivity Map

and seasonal campsites. They relied on a wide range of native food and animal resources in their traditional lands (Pechanga Band of Indians 2024; Soboba Band of Luiseño Indians 2024). Resource availability could change seasonally or depend on the different ecological zones within their territory. Traditional practices included basketry, rattle-making, and salt gathering, to name a few. Their traditional language is part of the Takic subfamily. Luiseño territory was extensive, covering large parts of coastal and inland Southern California. Ethnographic reports of the Luiseño in this region have been documented by Kroeber (1925), Strong (1929), Sparkman (1908), and Oxendine (1983).

Prehistoric chronology for the greater region of San Diego and Riverside Counties was introduced by Rogers (Rogers 1939, 1945, 1966). He described the earliest known tradition as the San Dieguito Tradition (8,000-5,000 BCE). According to Rogers, San Dieguito people were nomadic large-game hunters that manufactured tool assemblages of large domed scrapers, knives and projectile points, stemmed projectile points, chipped stone crescents, and hammerstones (Rogers 1939, 1966). Eventually, regional chronology was refined, and the San Dieguito Tradition was divided into three phases: San Dieguito I, II, and III. San Dieguito I has been documented in the desert regions, while San Dieguito II and III have been recorded on both sides of the Peninsular Ranges. Rogers indicated that the San Diego Tradition represented an increase in tool specialization and refinement.

Rogers described that La Jolla Complex (5,500 to 1,000 BCE) occurred after the San Dieguito Tradition (Rogers 1939, 1945). La Jolla Complex was refined by Harding (1951) and is characterized by the presence of millingstone assemblages and shell middens. Cultural resources from sites associated with La Jolla Complex include millingstones, manos, flaked stone tools, shell middens, and projectile points. The complex may have developed as cultural adaptation to climatic warming after 6,000 BCE (Moratto 1984). The Pauma Tradition may be an inland variant of the La Jolla Complex (True 1958), exhibiting a subsistence shift from a focus on shellfish to hunting and gathering. The archaeological record exhibits this shift by the increase in number and variety of stone tools and a decrease in the amount of shell (Meighan 1954; True 1958, 1977; Warren 1968).

The San Luis Rey Complex has been identified as the late period by Meighan (1954) and True and colleagues (1974). Archaeological sites in the region have been associated with the San Luis Rey tradition (Sutton 2011). Meighan divided the complex into two periods: San Luis Rey I (1400-1750 CE) and San Luis Rey II (1750-1850 CE). San Luis Rey I sites contain bedrock mortars, millingstones, small triangular projectile points with concave bases, bone awls, stone pendants, Olivella shell beads, and quartz crystals. In addition to those artifact types, San Luis Rey II assemblages contain pottery vessels, urns, tubular pipes, stone knives, steatite arrow straighteners, red and black pictographs, and trade items, such as metal knives and glass beads (Meighan 1954).

History

One of the first European travelers to arrive to the region was Juan Bautista de Anza who led an overland expedition in 1774. Spanish missions were established nearby, such as San Luis Rey. Many Native Americans were forcibly recruited into the Spanish Mission system, including many Luiseño, according to mission records. After the vast decimation of Native American villages in the region due to forced removal,

disease, and forced labor, the Spanish missions ended with the Decree for the Secularization of the Missions of California. Mexico gained independence from Spain, and the program of Mexican Land Grants in California began (Bancroft 1886). The Mexican ranchos operated as large pastoral estates.

The Treaty of Guadalupe Hidalgo in 1848 ended the Mexican-American War and the Mexican Rancho Period. California achieved statehood in the U.S. in 1850 when the area was annexed from Mexico (Beck and Haase 1974). Agricultural activities began in the Menifee Valley in the mid-1800s. Farming and ranching largely contributed to the early settlement in present-day Menifee with key crops including citrus fruits, grains, hay, and potatoes. The Santa Fe Railroad constructed a transcontinental line through the region in 1884. Small communities developed along the rail line, including Menifee as it slowly grew as an agricultural town. The City of Menifee derives its name from the miner Luther Menifee Wilson who discovered a large quartz lode nearby (City of Menifee 2024). The discovery attracted more settlers to the region and led to the development of the Menifee Mining District. Eventually, mining activity declined, and the local economy continued to focus on farming. The community of Quail Valley was acquired as a 3,000-acre property in 1891. For many years, the area was used as a game preserve for the hunting of quail, cottontail rabbits and doves. The town continued to be characterized as highly rural and agricultural until the mid/late-1900s. The Project area is located immediately southwest of the Romoland community, which began as Romola Farms in 1924 and consisted of small, 4-5 acres ranches that cultivated fig trees.

A rise in residential development occurred in Menifee in the 1960s-1990s with the Sun City community followed by the Menifee Lakes master-planned community. Sun City was planned and constructed as a residential retirement community on 1,200 acres by an Arizona developer in the 1960s. Menifee Lakes was constructed in 1989 as a nearly 2,000-acre residential community around a 45-acre artificial lake and golf course. Many of the roads in Menifee are named after citizens connected to the City's history, including nearby Ethanac Road. The road is named after Ethan Allen Chase who owned a 1,200-acre alfalfa farm in the region. The rise in residential development led to the construction of new schools, commercial businesses, and other city amenities in the late 1900s. The City of Menifee was incorporated in 2008 after experiencing a major population boom in the 2000s (City of Menifee 2024).

METHODS

All efforts made for the completion of this report were completed pursuant to requirements set forth in the California Environmental Quality Act (CEQA). This study is intended to identify whether cultural or paleontological resources are located within the Project area, whether any cultural or paleontological resources are potentially significant pursuant to the above-referenced regulations and standards, and to develop specific recommendations that will address potential impacts to existing or potential resources. Tasks completed include:

- A Sacred Lands File (SLF) search through the Native American Heritage Commission (NAHC),
- A cultural resources records search through the Eastern Information Center (EIC),
- A paleontological records search through the Western Science Center (WSC),
- Review of historical aerial imagery, topographic/geology maps, literature, and resource databases
- A pedestrian survey of the of the Project area and recordation of identified cultural resources,

- Development of recommendations for cultural and paleontological resources identified or potentially unrecorded within the Project area.

RESULTS

Cultural Resources Record Search

A cultural resources record search was conducted at the Eastern Information Center (EIC) for the Project area and one mile buffer. The record search occurred on January 29, 2024, and it was noted that no cultural resources were previously recorded within the Project area (Appendix A). One (1) previous large-scale cultural study (RI-2475) assessed the Project area in 1989. Outside the Project area but within the one-mile buffer, there were 18 previously recorded cultural resources, consisting of six (6) precontact sites, three (3) multicomponent sites, and nine (9) historic-age sites. An additional 17 cultural studies have taken place inside the one-mile buffer, resulting in the recording of the 18 resources. Of the nine (9) prehistoric and multicomponent cultural resources, eight (8) resources are clustered around a hilltop located southeast of the Project area. Specifically, the eight (8) resources are located approximately 0.75 miles from the Project area. One (1) prehistoric isolate is located 0.50 miles east of the Project area.

Table 1: Previously Recorded Resources within 1-Mile of the Project Area

Resource Number	Year Recorded	Age	Resource Description
P-33-011464	2002	Historic	Refuse site
P-33-011466	2002	Multicomponent	Prehistoric milling features and historic-period refuse
P-33-011467	2002	Prehistoric	Milling features and lithic scatter
P-33-011469	2002	Prehistoric	Milling features
P-33-011470	2002	Multicomponent	Prehistoric milling features, lithics and ecofact scatter, and historic-period refuse
P-33-011472	2002	Prehistoric	Milling features
P-33-015743	2005	Historic	Burlington Northern Santa Fe Railroad
P-33-018085	2005	Multicomponent	Prehistoric milling feature and historic-period refuse
P-33-018086	2005	Historic	Refuse site
P-33-020448	2011	Historic	Road
P-33-020449	2011	Historic	Road
P-33-020450	2011	Historic	Road
P-33-020502	2011	Historic	Road
P-33-020503	2011	Historic	Road
P-33-021493	2011	Historic	Road
P-33-028165	2018	Prehistoric	Cupule rock art feature
P-33-029126	2021	Prehistoric	Milling features and lithic scatter
P-33-029762	2023	Prehistoric	Isolate

The locations of offsite improvements (Figure 3) were provided in August 2024. The EIC closed effective July 2024, and therefore, an additional records search could not be completed. However, the record search in January 2024 incorporated a one-mile buffer, which entirely encompassed the areas of offsite improvements. Kimley-Horn conducted additional research to supplement the record search data. While researching the areas of offsite improvements, Kimley-Horn staff noted that one previously recorded cultural resource is located in the offsite improvements: P-33-028203.

P-33-028203

P-33-028203 is a historic-age alignment of eucalyptus trees on the west and east right-of-way of Sherman Road. Historic aerial images indicate that the trees were planted before 1938. The cultural resource was recorded in 2018 by J.A. Keller (Keller 2018). Keller evaluated the cultural resource and determined it was not eligible for the California Register of Historical Resources.

Sacred Lands File (SLF) Search

At the request of KHA, the Native American Heritage Commission (NAHC) conducted a search of Sacred Lands Files (SLF) for the Project area and vicinity on February 16, 2024. The NAHC indicated that the results were negative for the presence of known sacred lands (Appendix B). The City will perform Assembly Bill (AB) 52 Consultation with the Native American Tribes for the proposed Project.

Cultural Field Survey

Although the Project area was previously surveyed in 1989, the timespan since the previous study warranted an updated field investigation. Therefore, an intensive-level cultural resources field survey was conducted for the Project area on January 25, 2024 (Figure 5). The survey was conducted by walking parallel transects spaced approximately 15 meters apart. Transects were oriented in an east-west direction. Ground visibility was good to excellent throughout the Project area and averaged 90%. Minimal vegetation was located on the property, but shipping containers, trucks, and equipment obstructed ground visibility in some areas. It was noted that the property had experienced extensive prior grading. Soil consisted of a sandy loam intermixed with construction gravel. Although active industrial operations were occurring, the entire Project area was surveyed.

The survey resulted in the identification of one cultural resource, KHA-ETH-24-01 (Figure 6, Appendix D). The historic built environment resource is a one-story Single-Family Dwelling located at 26227 Sherman Rd, Menifee, CA 92585. The building was constructed in 1965 according to Riverside County property records. The current occupant provided information that he lived in the building for many years as his primary residence. Later, it was converted into a commercial office for its current use as the North County Sand & Gravel office. The building is 1,480 square feet and rectangular shaped with brown stucco walls and a shingle roof. The building is surrounded by industrial areas and agricultural land.

Figure 5: Overview of the Project Area

Figure 6: KHA-ETH-24-01 Overview

Kimley-Horn staff surveyed the areas of potential offsite improvements on August 30, 2024. During the survey, staff relocated P-33-028203 (Figure 7). Staff noted that trees were located on the west and east shoulders of Sherman Road and south of Ethanac Road. Some trees had been trimmed due to proximity to a powerline. Staff noted an abundance of modern refuse in the cultural resource location. The cultural resource is consistent with the recorded attributes in the site record from 2018.

Figure 7: P-33-028203 Overview

Additional Research

Staff also conducted a review of the National Register, California Register, National Historic Landmarks list, and other cultural databases. However, no cultural resources were identified within the Project area during the database review. The Menifee Valley Historical Association has designated local historical sites and constructed historical markers throughout the City. The closest marker to the Project area is the Romoland School, which is 1.5 miles to the east (Menifee Valley Historical Association 2024).

Additionally, historic topographic maps and historic imagery were reviewed to determine land use history and changes to the built environment of the region. Historic aerial images of the Project area date to 1966 and confirm that KHA-ETH-24-01 had already been constructed by this time, along with Sherman Road (Historic Aerials 2024). The rest of the Project area was a graded agricultural field. Minimal changes occurred until 2005-2009 when vegetation was removed, and the Project area converted into an industrial yard. Historic topographic maps of the Project area date to 1943 and portray the presence of Sherman Road adjacent to the Project area. KHA-ETH-24-01 is not represented on the topographic maps until 1975.

The Atchinson, Topeka, & Santa Fe Railway is displayed on the topographic maps as 0.5 miles to the northeast.

Paleontological Overview

A paleontological records search was also conducted through the Western Science Center (WSC) for the Project area and vicinity. The results were provided by WSC on March 5, 2024, and indicated that the geologic units underlying the Project area are mapped as alluvial deposits from the late to middle Pleistocene epoch (Appendix C). Pleistocene alluvial units are considered to be highly paleontologically sensitive (Morton 2003). The WSC did not report any known localities within the Project area or within a one-mile radius. However, WSC reported that they do have localities in similarly mapped units across Southern California. WSC also noted that specimens identified within the Project area would be scientifically significant. The City of Menifee General Plan identifies the Project area as a location of high paleontological sensitivity (City of Menifee 2024).

EVALUATIONS

The California Register of Historical Resources (CRHR) is based upon four criteria, at least one of which must be satisfied for a resource to be eligible for inclusion into the California Register of Historical Resources in addition to retaining its integrity. A resource is eligible if (1) it is associated with events that have made a significant contribution to the broad patterns of our history; (2) it is associated with the lives of persons important in our past; (3) it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value; or (4) it has yielded or is likely to yield information important in prehistory or history.

P-33-028203

Keller (2018) evaluated the cultural resource and determined it was not eligible for the CRHR. Kimley-Horn concurs with the evaluation.

KHA-ETH-24-01

Criterion 1: The building may have been constructed within the context of 1960s early development of City of Menifee. However, research has not identified significant association between the resource and important events related to agricultural and residential development. Therefore, it recommended not eligible for the CRHR under Criterion 1.

Criterion 2: Research about the building and its land use has not associated the resource with any important historical figures. Research about current and previous landowners has not identified them as historical figures. As a result, the building is recommended not eligible for the CRHR under Criterion 2.

Criterion 3: The building does not have any distinctive characteristics, and it lacks decorative features and distinctive design. Its architectural style is very typical of 1960s residential construction in this region. For these reasons, it is recommended not eligible for the CRHR under Criterion 3.

Criterion 4: The building is unlikely to yield important information about the regional history since it is a well-understood resource type. Therefore, it is recommended not eligible under Criterion 4.

The building and property are not recommended eligible under any criteria for listing in the CRHR. Therefore, KHA-ETH-24-01 does not qualify as a "Historical Resource" under CEQA.

RECOMMENDATIONS

Two historic-age cultural resources were identified within the Project area and associated offsite improvements as a result of this inventory. KHA-ETH-24-01 is a historic-age, single-story residential building. The building is recommended not eligible for listing in the CRHR. P-33-028203 is a historic-age tree alignment on Sherman Road that was previously recommended not eligible for the CRHR. As such, no known "Historical Resources" or "Unique Archaeological Resources", as defined by CEQA, are present within the Project area or associated offsite improvements.

It is unlikely that undisturbed buried cultural resources are present within the Project area given the extent of prior grading. While nine (9) prehistoric and multicomponent archaeological sites are located within one mile of the Project area, the sites are located over 0.50 miles away and concentrated around the hillsides to the southeast. As such, it is recommended that the City's standard conditions of approval for cultural resources be included that outline the process for treatment of any cultural resources or human remains inadvertently discovered during Project implementation. However, the Project area is highly sensitive for paleontological resources. Therefore, mitigation measures are recommended for a Paleontological Resources Impact Mitigation Program, paleontological monitoring, and data recovery. With these conditions of approval and mitigation measures in place, impacts to cultural and paleontological resources would be less than significant. An example of such conditions and mitigation measures are included below:

- **Cultural COA 1 - Human Remains:** If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The county Coroner must be notified of the find immediately. The remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC) within the period specified by law (24 hours). The NAHC will determine and notify a "most likely descendant." With the permission of the landowner or his/her authorized representative, the most likely descendent may inspect the site of the discovery. This inspection shall be completed within 48 hours of notification by the NAHC. The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.

- **Cultural COA 2 - Non-Disclosure of Location Reburials:** It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or

associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code section 7927.000, parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code section 7927.000.

- **Cultural COA 3 - Inadvertent Archaeological Find:** If during ground disturbance activities, unique cultural resources are discovered that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to project approval, the following procedures shall be followed. Unique cultural resources are defined, for this condition only, as being multiple artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance as determined in consultation with the Native American Tribe(s).

  All ground disturbance activities within 100 feet of the discovered cultural resources shall be halted until a meeting is convened between the developer, the archaeologist, the tribal representative(s), and the Community Development Director to discuss the significance of the find.

  At the meeting, the significance of the discoveries shall be discussed and after consultation with the tribal representative(s) and the archaeologist, a decision shall be made, with the concurrence of the Community Development Director, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resources.

  Grading of further ground disturbance shall not resume within the area of the discovery until an agreement has been reached by all parties as to the appropriate mitigation. Work shall be allowed to continue outside of the buffer area and will be monitored by additional Tribal monitors if needed.

  Treatment and avoidance of the newly discovered resources shall be consistent with the Cultural Resources Management Plan and Monitoring Agreements entered into with the appropriate tribes. This may include avoidance of the cultural resources through project design, in-place preservation of cultural resources located in native soils and/or re-burial on the Project property so they are not subject to further disturbance in perpetuity as identified in Non-Disclosure of Reburial Condition.

  Pursuant to California Public Resources Code Section 21083.2(b) avoidance is the preferred method of preservation for archaeological resources and cultural resources. If the landowner and the Tribe(s) cannot agree on the significance or the mitigation for the archaeological or cultural resources, these issues will be presented to the City Community Development Director for decision. The City Community Development Director shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources,

and recommendations of the project archaeologist and shall take into account the cultural and religious principles and practices of the Tribe. Notwithstanding any other rights available under the law, the decision of the City Community Development Director shall be appealable to the City Planning Commission and/or City Council."

- **Cultural COA 4 - Cultural Resources Disposition:** In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

  One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Menifee Community Development Department:

  Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources.

  Reburial of the resources on the Project property. The measures for reburial shall include, at least, the following: Measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods, and Native American human remains are excluded. Any reburial process shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the City under a confidential cover and not subject to Public Records Request.

  If preservation in place or reburial is not feasible then the resources shall be curated in a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility stating that subject archaeological materials have been received and that all fees have been paid, shall be provided by the landowner to the City. There shall be no destructive or invasive testing on sacred items, burial goods and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report.

- **Paleo MM 1 - Paleontological Resources Impact Mitigation Program:** The Applicant will submit a Paleontological Resources Impact Mitigation Program (PRIMP) prepared by a qualified paleontologist to the City of Menifee prior to the issuance of a grading permit. A qualified paleontologist is defined as an individual with an M.S./M.A. or Ph.D. in paleontology or geology

who is familiar with paleontological procedures and techniques, and who is knowledgeable in the geology and paleontology of the area.

- **Paleo MM 2 – Paleontological Monitoring:** A qualified paleontologist will attend preconstruction meetings to consult with the grading and excavation contractors concerning planned depths, excavation schedules, paleontological field techniques, and safety issues. In addition, all onsite construction personnel will receive Worker Education and Awareness Program (WEAP) training prior to the commencement of excavation work. All ground-disturbing activities associated with Project construction occurring within previously undisturbed fossil bearing formations will be monitored by a qualified paleontologist or qualified paleontological monitor. A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials and works under the direction of a qualified paleontologist. If fossils are discovered, the paleontologist (or paleontological monitor) will recover them. In most cases, this fossil salvage can be completed in a short period of time; however, some fossil specimens, such as a complete large mammal skeleton, may require an extended salvage period. In these instances, the paleontologist (or paleontological monitor) will be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovering of small fossil remains, such as isolated mammal teeth, it may be necessary to set up a screen-washing operation on site.

- **Paleo MM 3 – Data Recovery:** Fossil remains collected during the monitoring and salvage portion of the program will be cleaned, repaired, sorted, and catalogued. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will be deposited (as a donation) in a scientific institution with permanent paleontological collections located within Riverside County (or, if no repository is available, adjacent Counties). A final data recovery report will be completed that outlines the results of the paleontological monitoring program. This report will include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils. The report will be submitted to the City upon completion.

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APPENDIX A

Record Search Results from the Eastern Information Center

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-011464	CA-RIV-006842H	Other - Menifee West Temp 1	Site	Historic	AH04	2002 (Larry Pierson, Brian F. Smith & Associates)	RI-07628
P-33-011466	CA-RIV-006844/H	Other - Menifee West Temp 3	Site	Prehistoric, Historic	AH04; AP04	2002 (Pierson, Larry and Johnna Buysse, Brian F. Smith and Associates); 2007 (Smallwood, Josh, n/a)	RI-07509, RI-07628
P-33-011467	CA-RIV-006845	Other - Menifee West Temp 4	Site	Prehistoric	AP02; AP04	2002 (Johnna Buysse, Brian F. Smith & Associates)	RI-07628
P-33-011469	CA-RIV-006847	Other - Menifee West Temp 6	Site	Prehistoric	AP04	2002 (Johnna Buysse, Brian F. Smith & Associates)	RI-07628
P-33-011470	CA-RIV-006848/H	Other - Menifee West Temp 7	Site	Prehistoric, Historic	AH04; AP04	2002 (Larry Pierson, Brian F. Smith & Associates)	RI-07628
P-33-011472	CA-RIV-006850	Other - Menifee West Temp 9	Site	Prehistoric	AP04	2002 (Johnna Buysse, Brian F. Smith & Associates)	RI-07628
P-33-015743	CA-RIV-008196	National Register - 6Z; Other - BNSF Railroad; Other - San Jacinto Valley Railway; Other - Santa Fe Valley Railroad; Other - CRM TECH 2225-1H; Other - Burlington Northern Santa Fe Railroad; Other - 3CS; Other - SJ-32; Other - CRM TECH 2917-1; Other - CRM TECH 3084; Other - SRI-3145	Site	Historic	AH07	2005 (P.Easter. And P. Beedle, Applied EarthWorks, Inc.); 2006 (Peggy Beedle, Applied EarthWorks, Inc.); 2007 (Theordore Cooley, Jones & Stokes); 2007 (Craft, Andrea, Jones and Stokes); 2008 (Daniel Ballester, CRM TECH); 2009 (M.C. Hamilton, J. George, Applied EarthWorks, Inc.); 2010 (S. Justus and A. Giacinto, ASM Affiliates); 2011 (Joshua Trampier, Statistical Research, Inc.); 2012 (Stacie Wilson and Jill Gibson, AECOM); 2012 (C. Cotterman, E. Denniston, ECORP Consulting); 2015 (Daniel Ballester, CRM TECH); 2016 (Michael Hogan, CRM TECH)	RI-07528, RI-07833, RI-08955, RI-08980, RI-09002, RI-09021, RI-09364, RI-10069, RI-10160
P-33-018085	CA-RIV-009288	Other - LSA-HOV-530-S1-H1	Site	Prehistoric, Historic	AH04; AP04	2005 (David Brunzell, LSA Associates)	
P-33-018086	CA-RIV-009289	Other - LSA-HOV-530-S1-H2	Site	Historic	AH04	2005 (David Brunzell, LSA Associates)	
P-33-020448	CA-RIV-010349	Other - SRI-1357	Site	Historic	AH07; HP37	2011 (Joshua Trampier, n/a)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-020449	CA-RIV-010350	Other - SRI-1359	Site	Historic	AH07; HP37	2011 (Joshua Trampier, SRI)	
P-33-020450	CA-RIV-010351	Other - SRI-1360	Site	Historic	AH07; HP37	2011 (Joshua Trampier, SRI)	
P-33-020502	CA-RIV-010403	Other - SRI-3144	Site	Historic	AH07; HP37	2011 (Joshua Trampier, Statistical Research, Inc.)	
P-33-020503	CA-RIV-010404	Other - SRI-3148	Site	Historic	AH07; HP37	2011 (Joshua Trampier, Statistical Research, Inc.)	
P-33-021493	CA-RIV-011281	Other - SRI-3146	Site	Historic	AH07; HP37	2011 (Joshua Trampier, SRI)	
P-33-028165		Other - LSA-TBB1701-KC-S-1	Site	Prehistoric	AP05	2018 (Paul Macarro, Pechanga Band of Luiseno Mission Indians)	
P-33-029126	CA-RIV-013019	Other - Underwood Temp-1	Site	Prehistoric	AP02; AP04	2021 (Brian F. Smith and Associates, Inc., Brian F. Smith and Associates, Inc.)	
P-33-029762		Other - KIM2224-I-1	Other	Prehistoric	AP16	2023 (J Orozco, G Brentner, BCR Consulting LLC)	RI-10888

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-01837	NADB-R - 1082217; Submitter - 0767; Voided - MF-2004	1984	Stephen Bouscaren and Daniel McCarthy	An Archaeological Assessment of the Proposed Devers-Valley 500 KV Transmission Line and Corridor and the Proposed Valley-Auld-Skylark 115 KV T/L Corridor, Riverside County, California	Archaeological Research Unit, U.C. Riverside	33-000057, 33-000713, 33-000806, 33-001395, 33-002830, 33-002848, 33-002849, 33-002850, 33-002851, 33-002852, 33-002853, 33-002854, 33-002855
RI-01958	NADB-R - 1082352; Voided - MF-2127	1974	SMITH, GERALD	ARCHAEOLOGICAL ASSESSMENT - 83 ACRE SITE NEAR ROMOLAND	SAN BERNARDINO COUNTY MUSEUM ASSOCIATION	
*RI-02475	NADB-R - 1082968; Voided - MF-2707	1989	Christopher E. Drover	A Cultural Resource Inventory of the Menifee North Project, Near Hemet, California	Christopher E. Drover	33-000978, 33-001175, 33-002607, 33-003714
RI-04894	NADB-R - 1086261; Submitter - CAP-05-652.ARS	2005	HOOVER, ANNA M. and WILLIAM R. GILLEAN	A PHASE I ARCHAEOLOGICAL SURVEY REPORT ON APNS 327-220-005 & -012 TO -016, +68 ACRES, CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA	L&L ENVIRONMENTAL, INC.	
RI-06018	NADB-R - 1087381; Submitter - 1104	2003	Bai Tang, Michael Hogan, Mariam Dahdul, and Daniel Ballester	Historical/Archaeological Resources Survey Report: Menifee Valley North Drainage Facilities Project, In and Near the Communities of Romoland and Homeland, Riverside County, California	CRM TECH	
RI-07395		2006	Dice, Michael and Lord, Kenneth J.	Phase I Cultural Resource Survey, Negative Results Tentative Tract #33419 (APN #331-080-005, -006, -007, -009, -010, -011, - 012, -018, -019, -020, -021, -024, -025, -027, -028) Sun City Area, County of Riverside, California	MBA	
RI-07509	Submitter - CRM Tech No.1856	2007	Hogan, Michael and Bai "Tom" Tang	Archaeological Mitigation Report Site 33-011466 (CA-RIV-6844/H) Tract No. 29777, near the Community of Romoland, Riverside County, California	CRM Tech	33-011466
RI-07633		2006	Lorenzen, Karl James	Letter Report: Terra Fiore Archaeological Assessment, City of Perris, California	Brian F. Smith and Associates	
RI-08771		2010	Bai 'Tom' Tang	Preliminary Historical/Archaeological Resource Study Southern California Regional Rail Authority (SCRRA) Perris Valley Line Positive Train Control (PTC) Project In and near the Cities of Riverside, Perris, and Menifee Riverside County, California CRM TECH Contract No. 2444	CRM TECH	

*In Project Area

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-09002		2014	Bai "Tom" Tang	Letter Report: Update to Historical/ Archaeological Resources Survey Report: Menifee Valley North Drainage Facilities Project, Cities of Menifee and Perris; Unincorporated Homeland and Romoland Areas, Riverside County, California, CRM TECH Contract No. 1104/2771	CRM TECH	33-015743, 33-020504, 33-020644
RI-10461	Other - 18142.00	2015	William T. Eckhardt, Matthew M. DeCarlo, Doug Mengers, Sherri Andrews, Don Laylander, and Tony Quach	Archaeological Investigations and Monitoring for the Construction of the Devers-Palo Verde No. 2 Transmission Line Project, Riverside County, California	ASM Affiliates	33-018128, 33-020289, 33-020290, 33-020294, 33-020317, 33-020318, 33-020319, 33-020320, 33-020321, 33-020322, 33-020323, 33-020324, 33-020325, 33-020336, 33-020409, 33-020410, 33-020975, 33-020976, 33-020977, 33-020978, 33-020979, 33-021001, 33-021014, 33-022103, 33-022105, 33-023799
RI-10771		2018	Brian F. Smith	Results of Archaeological Monitoring for the Talavera Project (Tract No. 29777), City of Menifee, California (Negative Archaeological Monitoring Report)	Brain F. Smith and Associates, Inc.	33-006842, 33-006843, 33-006844, 33-006850
RI-10888		2023	David Brunzell	Phase 1 Cultural Resources Assessment Motte Business Center Project City of Menifee, Riverside County, California	BCR Consulting LLC	33-029762
RI-10911		2023	David Brunzell	Cultural Resource Assessment for the Northern Gateway Logistics Center Project, City of Menifee, Riverside County, California	BCR Consulting LLC	
RI-10915		2023	David Brunzell and Joseph Orozco	Phase 1 Cultural Resources Assessment Ethanac & Evans Project (APN: 331-060-018) City of Menifee, Riverside County, California	BCR Consulting LLC	
RI-10938		2023	David Brunzell	Cultural Resources Assessment for the Northen Gateway Commerce Center Project, City of Menifee, Riverside County, California	BCR Counsulting	
RI-10967	Other - KIM2123	2022	David Brunzell	Phase 1 Cultural Resources Assessment Northern Gateway Commerce Centers I & II Project City of Menifee, Riverside County, California	BCR Consulting LLC	
RI-11227		2010	John J. Killeen	Cultural Resources Survey of a New Alignment for the Water Supply Desalination Infrastructure, South Perris I Brine Line Project		

APPENDIX B

Sacred Lands File Search Results from the Native American Heritage Commission

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
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Miwok, Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

February 16, 2024

Jamie Nord
Kimley-Horn & Associates

Via Email to: Jamie.Nord@kimley-horn.com

Re: Ethanac Business Center Project, Riverside County

Dear Ms. Nord:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

APPENDIX C

Paleontological Record Search Results from the Western Science Center

WESTERN SCIENCE CENTER

March 5th, 2024

Kimley-Horn
Jamie Nord
3801 University Ave, Ste. 300
Riverside, CA 92501

Hello,

This letter presents the results of a record search conducted for the Ethanac Business Center Project located in the City of Menifee, Riverside County, CA. The project is located at 26227 Sherman Road on Township 5 South, Range 3 East, Section 15 on the *Romoland, CA* USGS 7.5 minute quadrangle.

The geologic units underlying the project area is mapped as alluvial deposits from the late to middle Pleistocene epoch (Morton, Bovard, and Morton 2003). Pleistocene alluvial units are considered to be highly paleontologically sensitive. The Western Science Center does not have localities within the project area or within a 1 mile radius; however it does have localities in similarly mapped units across Southern California.

Any fossil specimen from the Ethanac Business Center Project would be scientifically significant. Excavation activity associated with the development of the project area would impact the paleontologically sensitive Pleistocene alluvial units, and it is the recommendation of the Western Science Center that a paleontological resource mitigation program be put in place to monitor, salvage, and curate any recovered fossils associated with the study area.

If you have any questions, or would like further information, please feel free to contact me at bstoneburg@westerncentermuseum.org.

Sincerely,

Brittney Elizabeth Stoneburg, MSc
Collections Manager

APPENDIX D

CA DPR 523 Forms

State of California ◆ The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code Reviewer Date

Page 1 of 4 *Resource Name or #: (Assigned by recorder) KHA-ETH-24-01
P1. Other Identifier: 26227 Sherman Road
*P2. Location: ☐ Not for Publication ✠ Unrestricted
*a. County Riverside and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad Romoland Date _____ T __; R __; __ ☐ of __ ☐ of Sec __; _____ B.M.
c. Address 26227 Sherman Rd City Menifee, CA Zip 92585
d. UTM: (Give more than one for large and/or linear resources) Zone __, _____ mE/ _____ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

APN 331110023

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This building is a one-story Single-Family Dwelling located at 26227 Sherman Rd, Menifee, CA 92585. The building was constructed in 1965 according to Riverside County property records. The current occupant provided information that he lived in the building for many years as his primary residence. Later, it was converted into a commercial office for its current use as the North County Sand & Gravel office. The building is 1,480 square feet and rectangular shaped with stucco walls and a shingle roof. The building is surrounded by industrial areas and open land.

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

*P3b. Resource Attributes: (List attributes and codes) HP2. Single family property
*P4. Resources Present: ✠ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)
P5b. Description of Photo: (view, date, accession #)
*P6. Date Constructed/Age and Source: ✠ Historic ☐ Prehistoric ☐ Both

*P7. Owner and Address:
North County Sand & Gravel
26227 Sherman Rd, Menifee, CA 92585

*P8. Recorded by: (Name, affiliation, and address) Jamie Nord, Kimley-Horn & Associates, Inc. 3801 University Ave, Suite 300, Riverside, CA 92501

*P9. Date Recorded: 01/29/2024
*P10. Survey Type: (Describe)
Intensive-level
*P11. Report Citation: (Cite survey report and other sources, or enter "none.")
Cultural and Paleontological Resources Assessment for the Ethanac Business Center Project, Menifee, CA

State of California ◆ The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code Reviewer Date

 *Resource Name or #: (Assigned by recorder) KHA-ETH-24-01
P1. Other Identifier: 26227 Sherman Road

*Attachments: ☐NONE ✠Location Map ☐Continuation Sheet ✠Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California ◆ The Resources Agency Primary #
DEPARTMENT OF PARKS AND RECREATION HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) KHA-ETH-24-01 *NRHP Status Code
Page 2 of 4

B1. Historic Name: N/A
B2. Common Name: 26227 Sherman Road
B3. Original Use: Residential B4. Present Use: Commercial/Industrial
*B5. Architectural Style: N/A
*B6. Construction History: (Construction date, alterations, and date of alterations)

The building was constructed in 1965. Exact dates of later alterations are unknown, but the current occupant provided information that the interior was converted into a commercial office.

*B7. Moved? ☒No ☐Yes ☐Unknown Date: N/A Original Location: N/A
*B8. Related Features:

N/A

B9a. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme N/A Area N/A

Period of Significance N/A Property Type N/A Applicable Criteria N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

B11. Additional Resource Attributes: (List attributes and codes)
*B12. References

https://ca-riverside-acr.publicaccessnow.com/PropertySearch/Valuation.aspx?p=331110023&a=

https://cityofmenifee.us/85/History#:~:text=The%20area%20was%20originally%20inhabited,in%201850%20under%20California's%20statehood.

B13. Remarks:

Criterion 1: The building may have been constructed within the context of 1960s early development of City of Menifee. However, research has not identified significant association between the resource and important events related to agricultural and residential development. Therefore, it recommended not eligible for the California Register under Criterion 1.

Criterion 2: Research about the building and its land use has not associated the resource with any important historical figures. Research about current and previous landowners has not identified

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

them as historical figures. As a result, the building is recommended not eligible for the CRHR under Criterion 2.

Criterion 3: The building does not have any distinctive characteristics, and it lacks decorative features and distinctive design. Its architectural style is very typical of 1960s residential construction in this region. For these reasons, it is recommended not eligible for the CRHR under Criterion 3.

Criterion 4: The building is unlikely to yield important information about the regional history, since it is a well-understood resource type. Therefore, it is recommended not eligible under Criterion 4.

The building and property are not recommended eligible under any criteria for listing in the California Register.

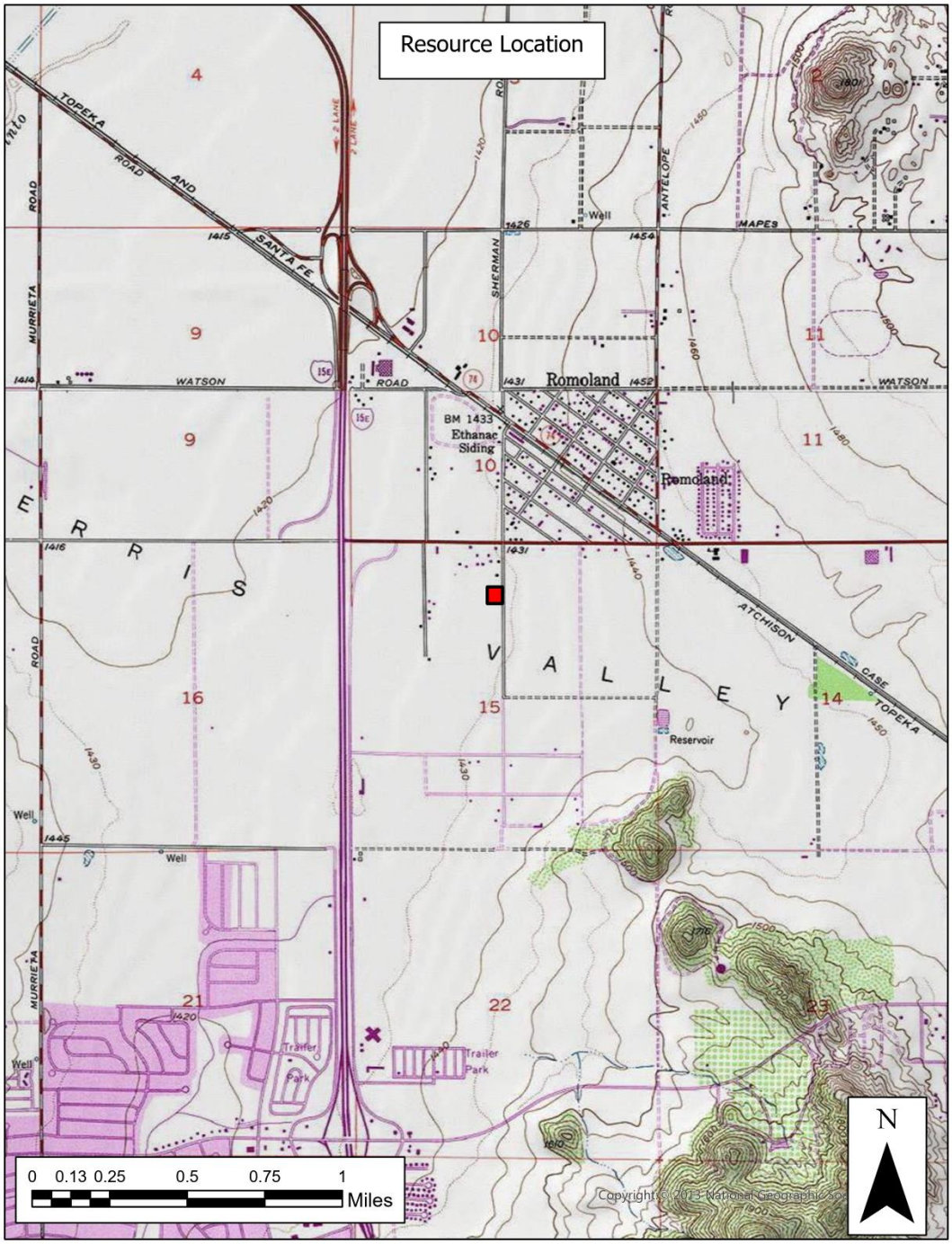
*B14. Evaluator: Jamie Nord
*Date of Evaluation: 2/19/2024

(This space reserved for official comm

State of California - The Resources Agency Primary #
DEPARTMENT OF PARKS AND RECREATION HRI#
LOCATION MAP
Trinomial

Page 4 **of** 4 ***Resource Name or #** (Assigned by recorder) KHA-ETH-24-01

***Map Name:** Romoland 7.5 topo map ***Scale:** 1:24,000 ***Date of map:** 1/29/24



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary# 33-028203
HRI #
Trinomial

CONTINUATION SHEET

Property Name: _____

Page 1 of 1

***Resource Name or #** (Assigned by recorder) _____ ***Recorded by:** J. Parra

***Date** 08/30/2024 O Continuation X Update

This historic-age site consists of a eucalyptus tree alignment on Sherman Road. Kimley-Horn cultural resources management staff surveyed the recorded location of the cultural resource on 08/30/2024. The cultural resource was relocated during the survey. Trees were located on the west and east shoulders of Sherman Road and south of Ethanac Road. Some trees had been trimmed due to proximity to a powerline. Staff noted an abundance of modern refuse in the cultural resource location. The cultural resource is consistent with the recorded attributes in the site record from 2018.

Overview of P-33-028203, facing south

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary# 33-028203
HRI #
Trinomial

CONTINUATION SHEET

Property Name: _____

Page _1___ of __1__

***Resource Name or #** (Assigned by recorder) _____ ***Recorded by:** J. Parra

***Date** 08/30/2024 O Continuation X Update

Overview of P-33-028203, facing north

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary# 33-028203
HRI #
Trinomial

CONTINUATION SHEET

Property Name: _____

Page 1 of 1

***Resource Name or #** (Assigned by recorder) _____ ***Recorded by:** J. Parra

***Date** 08/30/2024 O Continuation X Update

Example of modern refuse, facing northeast

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary# 33-028203
HRI #
Trinomial

CONTINUATION SHEET

Property Name: _____

Page _1___ of __1__

***Resource Name or #** (Assigned by recorder) _____ ***Recorded by:** J. Parra

***Date** 08/30/2024 O Continuation X Update

Overview of trimmed trees, facing east

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-33-028203
HRI #
Trinomial
NRHP Status Code 6Z (CHR Status Code)

Other Listings
Review Code | Reviewer | Date

 *Resource Name or #: MR-DC

P1. Other Identifier:

*P2. Location: ☐ Not for Publication X Unrestricted *a. County: Riverside

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Romoland Date: 1979 T 5s; R 3w; E ½ of NW ¼ and W ½ of NE ¼ of Sec 15; S.B.M.

c. Address: City: Menifee Zip:

d. UTM: Zone: 11; 48328.90mE/ 3733580.10mN (northern extent)
483292.55mE / 3733023.99mN (southern extent)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: 1436-1439′
The trees are located along the west and east Sherman Road shoulders and rights-of-way, south of Ethanac Road and north of McLaughlin Road, in the City of Menifee

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This site is comprised exclusiviely of a variety of eucalyptus trees planted on the west and east shoulders and rights-of-way of Sherman Road. Most of Sherman Road is an unimproved dirt road and in some cases, the trees are within the projected road way. It is probable that the trees were planted in conjunction with development of the 1924 Trumble Farms subdivision, although photographic evidence only shows their existence as early as 1938. Sherman Road was the center of the Temescal Water Company's 127-lot subdivision and led directly into the town of Romoland. Current aerial photographs indicate that trees may have been planted on other streets in relation to Trumble Farms, but this could not photo-documented and they do not appear on USGS maps. Several of the trees within this site have been removed in conjunction with improvements to Sherman Road and it is probable that more will be removed as [property in this area develops.

*P3b. Resource Attributes: (List attributes and codes) HP30 (Trees/vegetation)

*P4. Resources Present: ☐Building ☐Structure ☐Object X Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5b. Description of Photo: (View, date, accession #) Looking north form the southern extent of tree line)

*P6. Date Constructed/Age and Sources: x Historic
☐Prehistoric ☐Both
Pre-1938, probably 1924

*P7. Owner and Address:
City of Menifee

*P8. Recorded by: (Name, affiliation, and address) Jean A. Keller, Ph.D., Cultural resources Consultant; 1042 N. El Camino Real, Suite B-244, Encinitas, CA 92034

*P9. Date Recorded: 06/19/2018

*P10. Survey Type: (Describe)
Phase I Cultural Resources Assessment pedestrian survey

*P11. Report Citation: A Phase I Cultural Resources Assessment of the Motte Rincon Distribution Center, 79.0 Acres of Land in the City of Menifee, Western Riverside County (draft)

*Attachments: ☐NONE X Location Map X Photographs ☐Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

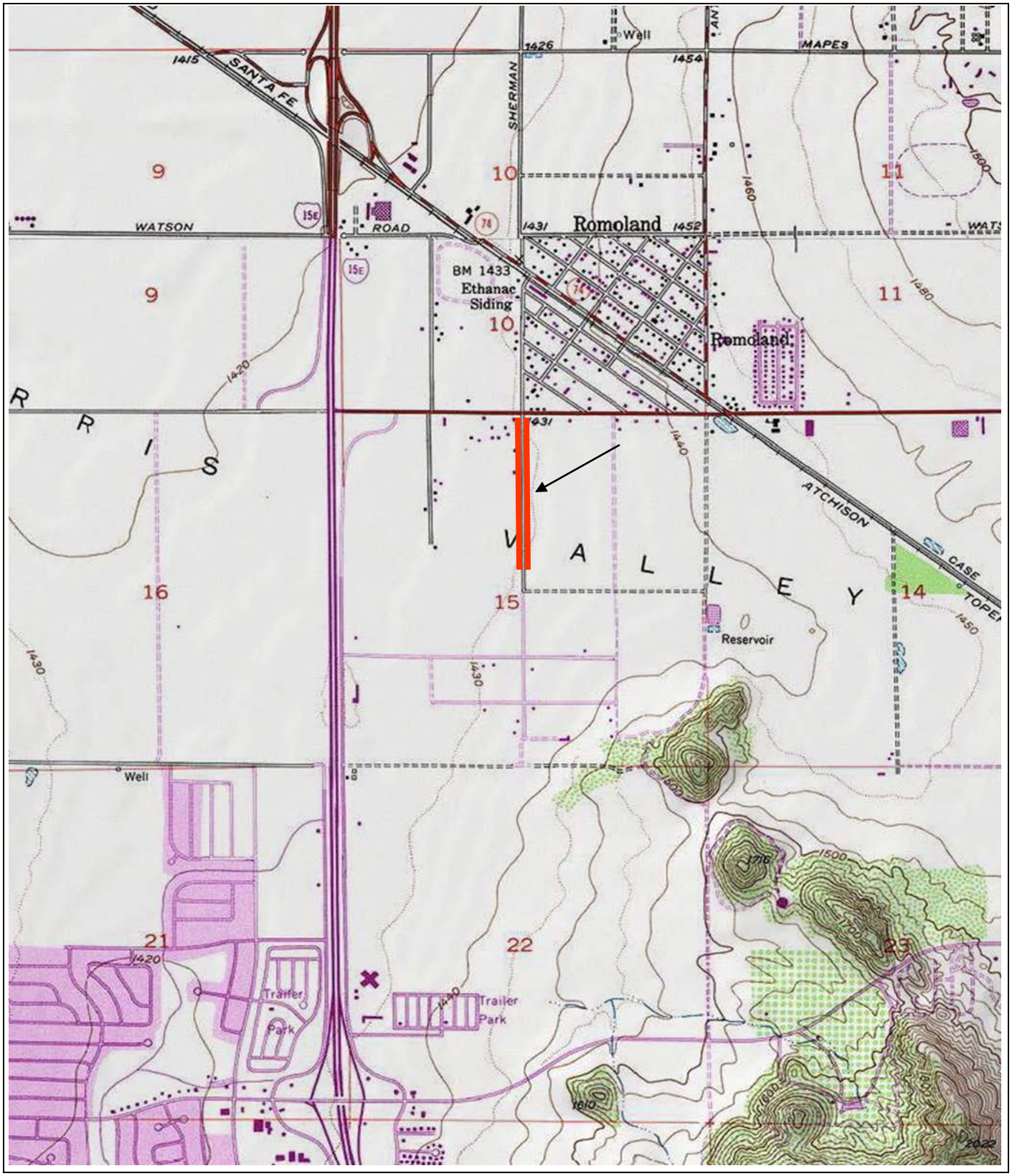
Primary # P-33-028203
HRI#
Trinomial

***Resource Name or #:** MR-DC

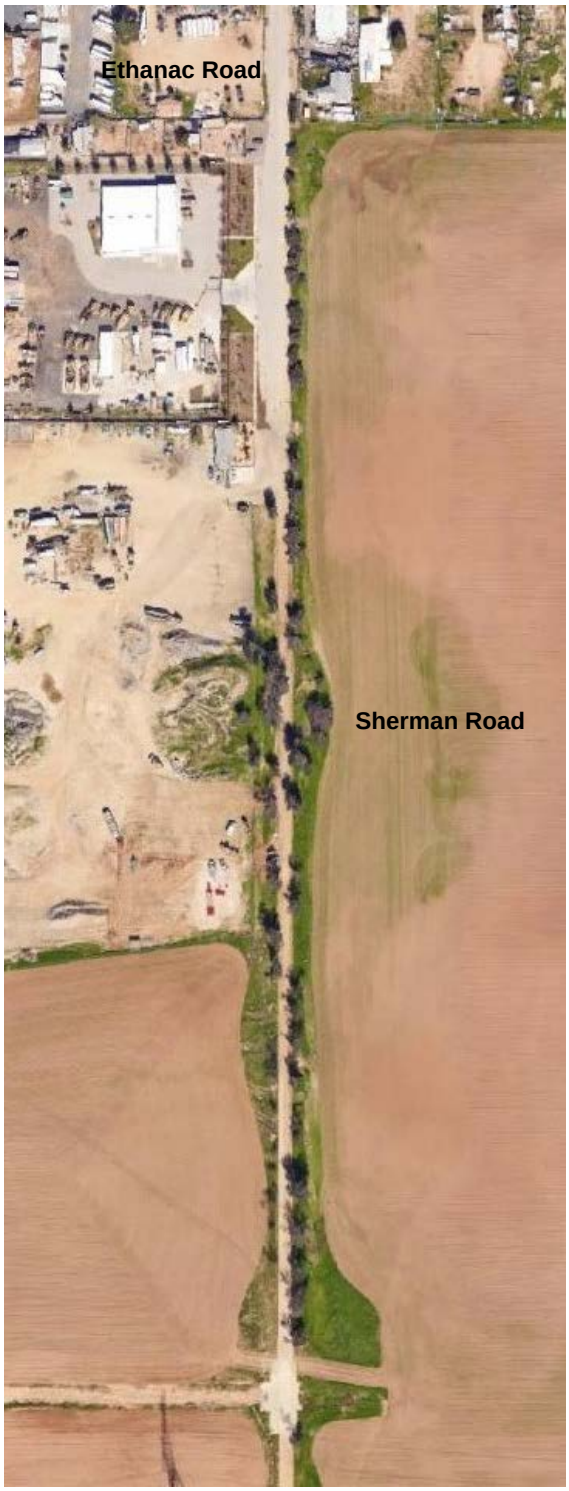
***Map Name:** USGS Romoland, California

***Scale:** 1″: 24,000

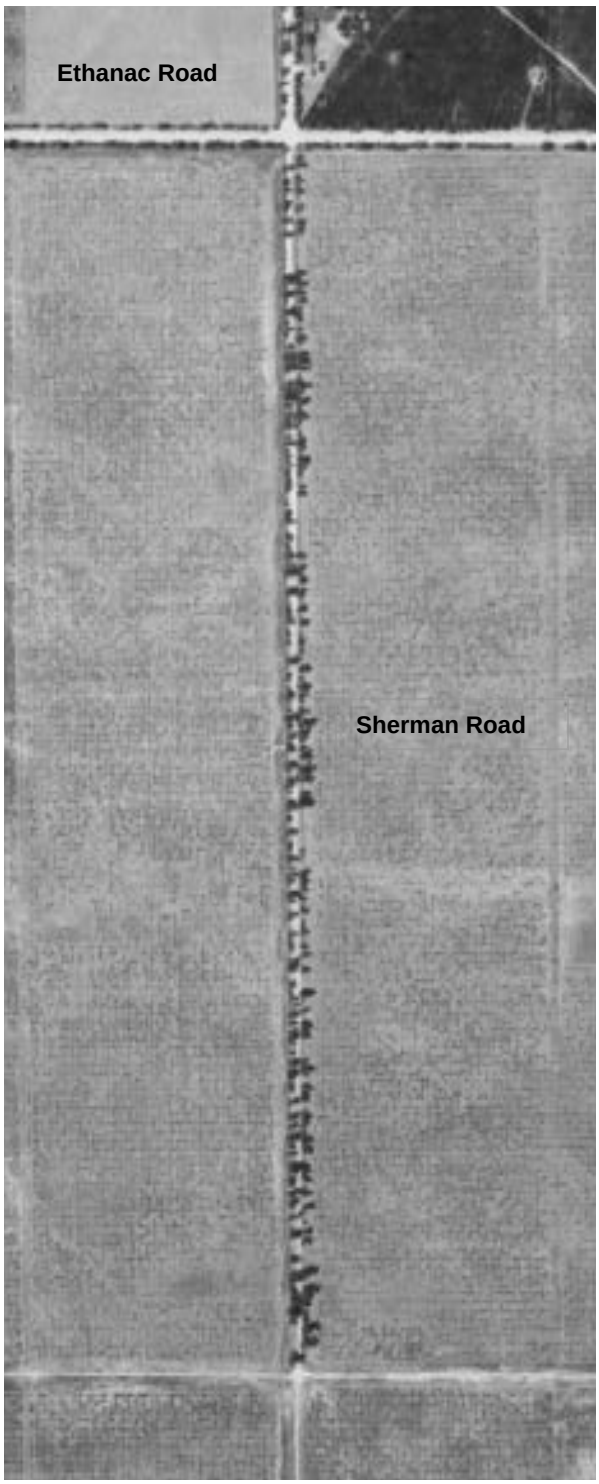
***Date of Map:** 1979



*Required information



Google Earth (February 2018)



USDA Flight (June 14, 1938)

Appendix D: Energy Calculations

Ethanac Business Park

ENERGY ANALYSIS

CITY OF MENIFEE

PREPARED BY:

Haseeb Qureshi
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SEPTEMBER 6, 2024

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LIST OF ABBREVIATED TERMS

%	Percent
(1)	Reference
AQIA	*Ethanac Business Park Air Quality Impact Analysis*
BACM	Best Available Control Measures
BTU	British Thermal Units
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
City	City of Menifee
CPEP	Clean Power and Electrification Pathway
CPUC	California Public Utilities Commission
DMV	Department of Motor Vehicles
EIA	Energy Information Administration
EPA	Environmental Protection Agency
EMFAC	EMissions FACtor
FERC	Federal Energy Regulatory Commission
GHG	Greenhouse Gas
GWh	Gigawatt Hour
HHD	Heavy-Heavy Duty Trucks
hp-hr-gal	Horsepower Hours Per Gallon
IEPR	Integrated Energy Policy Report
ISO	Independent Service Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
kBTU	Thousand-British Thermal Units
kWh	Kilowatt Hour
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHD1/LHD2	Light-Heavy Duty Trucks
MDV	Medium Duty Trucks
MHD	Medium-Heavy Duty Trucks
MMcfd	Million Cubic Feet Per Day
mpg	Miles Per Gallon

MPO	Metropolitan Planning Organization
PG&E	Pacific Gas and Electric
Project	Ethanac Business Park
PV	Photovoltaic
SCAB	South Coast Air Basin
SCE	Southern California Edison
SDAB	San Diego Air Basin
sf	Square Feet
SoCalGas	Southern California Gas
TEA-21	Transportation Equity Act for the 21st Century
U.S.	United States
VMT	Vehicle Miles Traveled

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Ethanac Business Park Energy Analysis* are summarized below based on the significance criteria in Section 5 of this report consistent with Appendix G of the *CEQA Guidelines* (*CEQA Guidelines*) (1). Table ES-1 shows the findings of significance for potential energy impacts under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Energy Impact #1: Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	5.0	*Less Than Significant*	*n/a*
Energy Impact #2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	5.0	*Less Than Significant*	*n/a*

ES.2 PROJECT REQUIREMENTS

The Project would be required to comply with regulations imposed by the federal and state agencies that regulate energy use and consumption through various means and programs. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of energy usage include:

- Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)
- The Transportation Equity Act for the 21st Century (TEA-21)
- Integrated Energy Policy Report (IEPR)
- State of California Energy Plan
- California Code Title 24, Part 6, Energy Efficiency Standards
- California Code Title 24, Part 11, California Green Building Standards Code (CALGreen)
- AB 1493 Pavley Regulations and Fuel Efficiency Standards
- California's Renewable Portfolio Standard (RPS)
- Clean Energy and Pollution Reduction Act of 2015 (SB 350)

Consistency with the above regulations is discussed in detail in Section 5 of this report.

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1 INTRODUCTION

This report presents the results of the energy analysis prepared by Urban Crossroads, Inc., for the proposed Ethanac Business Park Project (Project). The purpose of this report is to ensure that energy implication is considered by the City of Menifee (Lead Agency), as the lead agency, and to quantify anticipated energy usage associated with construction and operation of the proposed Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

1.1 SITE LOCATION

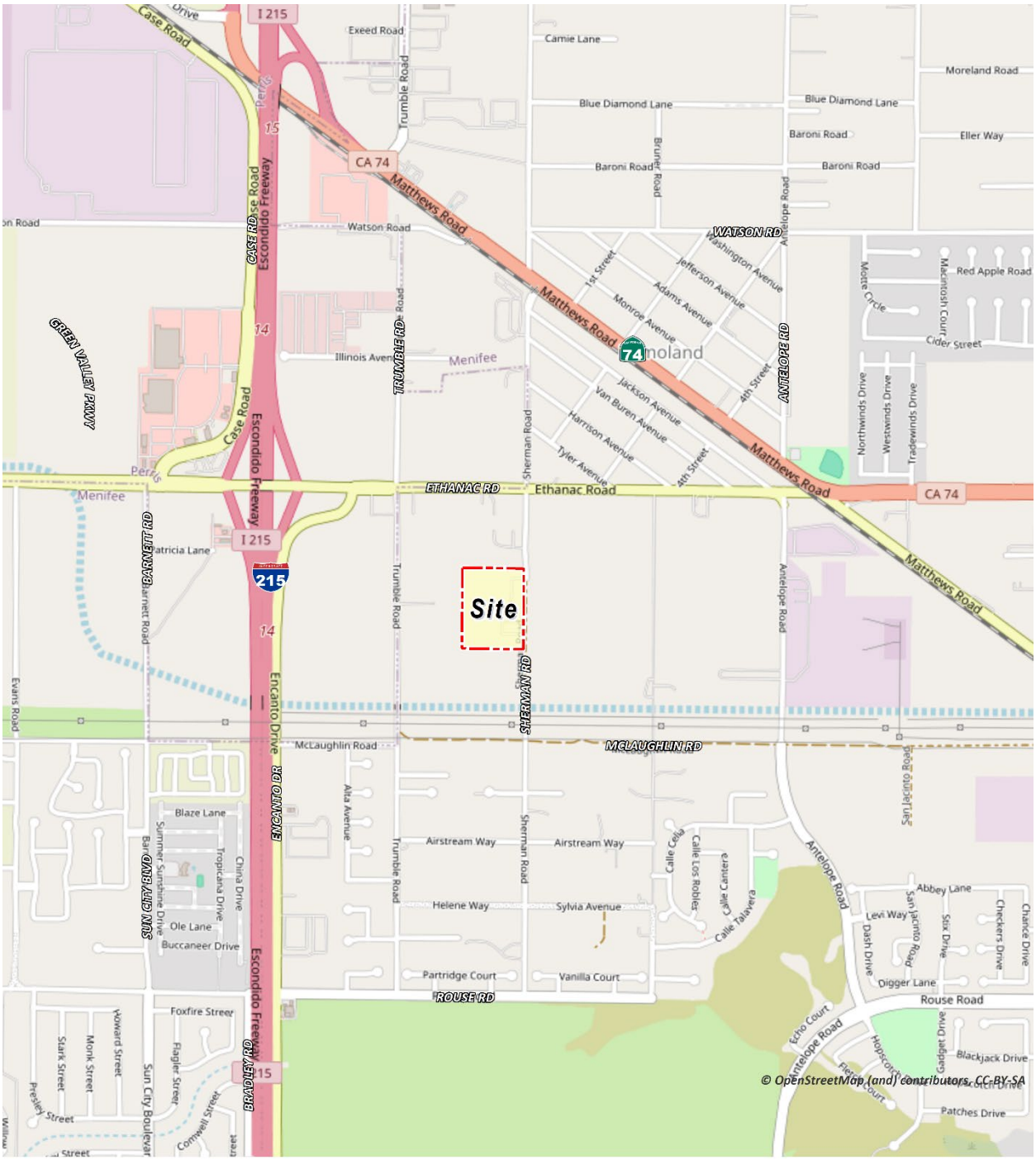
The proposed Project is located south of Ethanac Road, east of Trumble Road, west of Sherman Road, and north of McLaughlin Road in the City of Menifee as shown on Exhibit 1-A.

1.2 PROJECT DESCRIPTION

The Project includes the development of a 264,710-square-foot warehouse building which includes 10,000 square feet of office support space on an 11.47-acre site (see Exhibit 1-B). It is our understanding the proposed Project Planning Application consists of a Plot Plan (PLN23-0171), General Plan Amendment (PLN23-0173) to change the land use for a portion of the Project site from Heavy Industrial to Menifee North Specific Plan, Change of Zone (PLN23-0174) to change zoning for a portion of the Project site from Heavy Industrial to Menifee North Specific Plan, and a Specific Plan Amendment (PLN23-0175) to modify the boundary of the existing Menifee North Specific Plan to include the proposed Project and designate it as Planning Area 2 (Industrial). The proposed Project is anticipated to have an Opening Year of 2026.

In addition, to support the Project development, there will be paving for off-site improvements associated with roadway construction and utility installation which includes widening Sherman Road from Ethanac Road to the southern end of the Project

EXHIBIT 1-A: LOCATION MAP

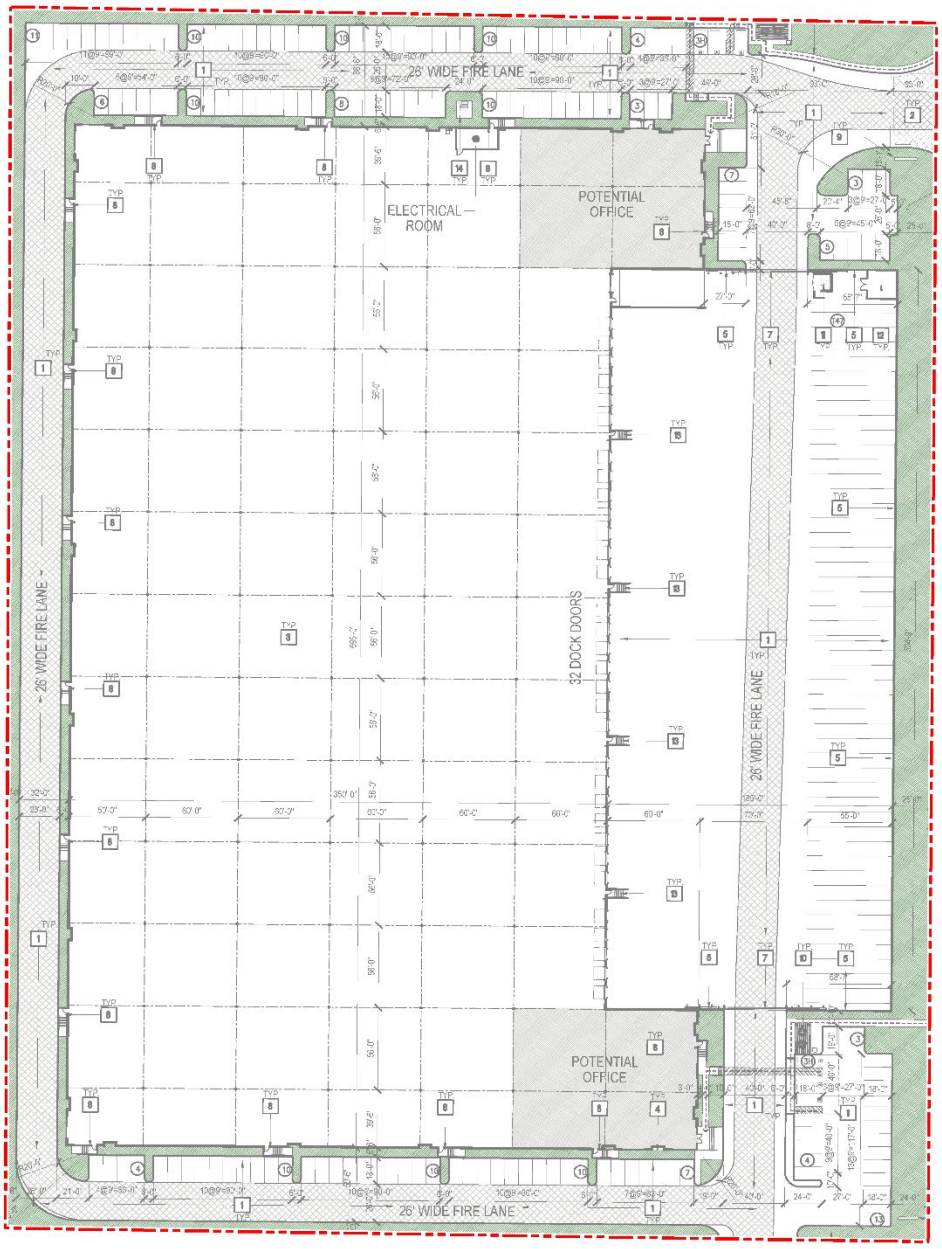


LEGEND:

N

Site Boundary

EXHIBIT 1-B: SITE PLAN



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LEGEND:

Site Boundary

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2 EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the Project region.

2.1 OVERVIEW

The most recent data for California's estimated total energy consumption and natural gas consumption is from 2021 and 2022, released by the United States (U.S.) Energy Information Administration's (EIA) California State Profile and Energy Estimates and includes (2):

- As of 2021, approximately 7,359 trillion British Thermal Unit (BTU) of energy was consumed
- As of 2021, approximately 605 million barrels of petroleum
- As of 2022, approximately 2,059 billion cubic feet of natural gas
- As of 2022, approximately 1,322 thousand short tons of coal

According to the EIA, in 2022 the U.S. petroleum consumption comprised about 90% of all transportation energy use, excluding fuel consumed for aviation and most marine vessels (3). In 2022, about 251,923 million gallons (or about 5.99 million barrels) of finished petroleum products were consumed in the U.S., an average of about 690 million gallons per day (or about 16.4 million barrels per day) (4). In 2021, California consumed approximately 12,157 million gallons in motor gasoline (33.31 million per day) and approximately 3,541 million gallons of diesel fuel (9.7 million per day) (5).

The most recent data provided by the EIA for energy use in California is reported from 2021 and provided by demand sectors as follows:

- Approximately 37.8% transportation sector
- Approximately 23.2% industrial sector
- Approximately 20.0% residential sector
- Approximately 19.0% commercial sector (6)

According to the EIA, California used approximately 247,250 gigawatt hours of electricity in 2021 (7). By sector in 2021, residential uses utilized 36.5% of the state's electricity, followed by 43.9% for commercial uses, 19.2% for industrial uses, and 0.3% for transportation. Electricity usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building (7).

According to the EIA, California used approximately 200,871 million therms of natural gas in 2021 (8). In 2021 (the most recent year for which data is available), by sector, industrial uses utilized 33% of the state's natural gas, followed by 30% used as fuel in the electric power sector, 21% from residential, 11% from commercial, 1% from transportation uses and the remaining 3% was utilized for the operations, processing and production of natural gas itself (8). While the supply of natural gas in the United States and production in the lower 48 states has increased greatly since 2008, California produces little, and imports 90% of its supply of natural gas (8).

In 2022, total system electric generation for California was 287,220 gigawatt hours (GWh). California's massive electricity in-state generation system generated approximately 203,257 GWh which accounted for approximately 71% of the electricity it uses; the rest was imported from the Pacific Northwest (12%) and the U.S. Southwest (17%) (9). Natural gas is the main source for electricity generation at 47.46% of the total in-state electric generation system power as shown in Table 2-1.

An updated summary of, and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below (10):

- In 2022, California was the seventh-largest producer of crude oil among the 50 states, and, as of January 2022, the state ranked third in crude oil refining capacity.
- California is the largest consumer of jet fuel and second-largest consumer of motor gasoline among the 50 states.
- In 2020, California was the second-largest total energy consumer among the states, but its per capita energy consumption was less than in all but three other states.
- In 2022, renewable resources, including hydroelectric power and small-scale, customer-sited solar power, accounted for 49% of California's in-state electricity generation. Natural gas fueled another 42%. Nuclear power supplied almost all the rest.
- In 2022, California was the fourth-largest electricity producer in the nation. The state was also the nation's third-largest electricity consumer, and additional needed electricity supplies came from out-of-state generators.

As indicated below, California is one of the nation's leading energy-producing states, and California's per capita energy use is among the nation's most efficient. Given the nature of the Project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the Project—namely, electricity, natural gas, and transportation fuel for vehicle trips associated with the uses planned for the Project.

TABLE 2-1: TOTAL ELECTRICITY SYSTEM POWER (CALIFORNIA 2022)

Fuel Type	California In-State Generation (GWh)	% of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total Imports (GWh)	Total California Energy Mix (GWh)	Total California Power Mix
Coal	273	0.13%	181	5,716	5,897	6,170	2.15%
Natural Gas	96,457	47.46%	44	7,994	8,038	104,495	36.38%
Oil	65	0.03%	-	-	-	65	0.2%
Other (Waste Heat/Petroleum Coke)	315	0.15%	-	-	-	315	0.11%
Unspecified	-	0.0%	12,485	7,943	20,428	20,428	7.11%
Total Thermal and Unspecified	**97,110**	**47.78%**	**12,710**	**21,653**	**34,363**	**121,473**	**45.77%**
Nuclear	17,627	8.67%	397	8,342	8,739	26,366	9.18%
Large Hydro	14,607	7.19%	10,803	1,118	11,921	26,528	9.24%
Biomass	5,366	2.64%	771	25	797	6,162	2.15%
Geothermal	11,110	5.47%	253	2,048	2,301	13,412	4.67%
Small Hydro	3,005	1.48%	211	13	225	3,230	1.12%
Solar	40,494	19.92%	231	8,225	8,456	48,950	17.04%
Wind	13,938	6.86%	8,804	8,357	17,161	31,099	10.83%
Total Non-GHG and Renewables	**106,147**	**52.22%**	**21,471**	**28,129**	**49,599**	**155,747**	**54.23%**
SYSTEM TOTALS	***203,257***	***100.0%***	***34,180***	***49,782***	***83,962***	***287,220***	***100.0%***

Source: CECs 2022 Total System Electric Generation

2.2 ELECTRICITY

The usage associated with electricity use was calculated using CalEEMod Version 2022.1.1.12. The Southern California region's electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board's once-through cooling policy, the retirement of San Onofre complicated the situation. California Independent Service Operator (ISO) studies revealed the extent to which the South Coast Air Basin (SCAB) and the San Diego Air Basin (SDAB) region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 Integrative Energy Policy Report (IEPR) after a collaborative process with other energy agencies, utilities, and air districts (11). Similarly, the subsequent 2023 IEPR provides information and policy recommendations on advancing a clean, reliable, and affordable energy system.

California's electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California ISO is a nonprofit public benefit corporation and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California's homes and communities. While utilities still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities (12).

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, utilities file annual transmission expansion/modification plans to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State.

Electricity is currently provided to the Project site by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. Based on SCE's 2022 Power Content Label Mix, SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers (13).

Table 2-2, SCE's specific proportional shares of electricity sources in 2022. As indicated in Table 2-2, the 2022 SCE Power Mix has renewable energy at 33.2% of the overall energy resources.

Geothermal resources are at 5.7%, wind power is at 9.8%, large hydroelectric sources are at 3.4%, solar energy is at 17.0%, and coal is at 0% (14).

TABLE 2-2: SCE 2022 POWER CONTENT MIX

Energy Resources	2022 SCE Power Mix
Eligible Renewable	**33.2%**
Biomass & Waste	0.1%
Geothermal	5.7%
Eligible Hydroelectric	0.5%
Solar	17.0%
Wind	9.8%
Coal	**0.0%**
Large Hydroelectric	**3.4%**
Natural Gas	**24.7%**
Nuclear	**8.3%**
Other	**0.1%**
Unspecified Sources of power*	30.3%
Total	**100%**

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources

2.3 NATURAL GAS

The following summary of natural gas customers and volumes, supplies, delivery of supplies, storage, service options, and operations is excerpted from information provided by the California Public Utilities Commission (CPUC).

> *"The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators: Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.*
>
> *California's natural gas utilities provide service to over 11 million gas meters. SoCalGas and PG&E provide service to about 5.9 million and 4.3 million customers, respectively, while SDG&E provides service to over 800, 000 customers. In 2018, California gas utilities forecasted that they would deliver about 4740 million cubic feet per day (MMcfd) of gas to their customers, on average, under normal weather conditions.*
>
> *The overwhelming majority of natural gas utility customers in California are residential and small commercials customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers*

consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.

A significant amount of gas (about 19%, or 1131 MMcfd, of the total forecasted California consumption in 2018) is also directly delivered to some California large volume consumers, without being transported over the regulated utility pipeline system. Those customers, referred to as "bypass" customers, take service directly from interstate pipelines or directly from California producers.

SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, i.e., they receive deliveries of gas from SoCalGas and in turn deliver that gas to their own customers. (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area.) Similarly, West Coast Gas, a small gas utility, is a wholesale customer of PG&E. Some other wholesale customers are municipalities like the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.

Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California gas utilities are Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora. Another pipeline, the North Baja - Baja Norte Pipeline takes gas off the El Paso Pipeline at the California/Arizona border and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, and authorizes rates for that service, the California Public Utilities Commission may participate in FERC regulatory proceedings to represent the interests of California natural gas consumers.

The gas transported to California gas utilities via the interstate pipelines, as well as some of the California-produced gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipelines systems (commonly referred to as California's "backbone" pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large volume noncore customers take natural gas delivery directly off the high-pressure backbone and local transmission pipeline systems, while core customers and other noncore customers take delivery off the utilities' distribution pipeline systems. The state's natural gas utilities operate over 100,000 miles of transmission and distribution pipelines, and thousands more miles of service lines.

Bypass customers take most of their deliveries directly off the Kern/Mojave pipeline system, but they also take a significant amount of gas from California production.

PG&E and SoCalGas own and operate several natural gas storage fields that are located within their service territories in northern and southern California, respectively. These storage fields, and four independently owned storage utilities - Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage - help meet peak seasonal and daily natural gas demand and allow California natural gas customers to secure

natural gas supplies more efficiently. PG&E is a 25% owner of the Gill Ranch Storage field. These storage fields provide a significant amount of infrastructure capacity to help meet California's natural gas requirements, and without these storage fields, California would need much more pipeline capacity in order to meet peak gas requirements.

Prior to the late 1980s, California regulated utilities provided virtually all natural gas services to all their customers. Since then, the Commission has gradually restructured the California gas industry in order to give customers more options while assuring regulatory protections for those customers that wish to, or are required to, continue receiving utility-provided services.

The option to purchase natural gas from independent suppliers is one of the results of this restructuring process. Although the regulated utilities procure natural gas supplies for most core customers, core customers have the option to purchase natural gas from independent natural gas marketers, called "core transport agents" (CTA). Contact information for core transport agents can be found on the utilities' web sites. Noncore customers, on the other hand, make natural gas supply arrangements directly with producers or with marketers.

Another option resulting from the restructuring process occurred in 1993, when the Commission removed the utilities' storage service responsibility for noncore customers, along with the cost of this service from noncore customers' transportation rates. The Commission also encouraged the development of independent storage fields, and in subsequent years, all the independent storage fields in California were established. Noncore customers and marketers may now take storage service from the utility or from an independent storage provider (if available), and pay for that service, or may opt to take no storage service at all. For core customers, the Commission assures that the utility has adequate storage capacity set aside to meet core requirements, and core customers pay for that service.

In a 1997 decision, the Commission adopted PG&E's "Gas Accord", which unbundled PG&E's backbone transmission costs from noncore transportation rates. This decision gave customers and marketers the opportunity to obtain pipeline capacity rights on PG&E's backbone transmission pipeline system, if desired, and pay for that service at rates authorized by the Commission. The Gas Accord also required PG&E to set aside a certain amount of backbone transmission capacity in order to deliver gas to its core customers. Subsequent Commission decisions modified and extended the initial terms of the Gas Accord. The "Gas Accord" framework is still in place today for PG&E's backbone and storage rates and services and is now simply referred to as PG&E Gas Transmission and Storage (GT&S).

In a 2006 decision, the Commission adopted a similar gas transmission framework for Southern California, called the "firm access rights" system. SoCalGas and SDG&E implemented the firm access rights (FAR) system in 2008, and it is now referred to as the backbone transmission system (BTS) framework. As under the PG&E backbone transmission system, SoCalGas backbone transmission costs are unbundled from noncore

transportation rates. Noncore customers and marketers may obtain, and pay for, firm backbone transmission capacity at various receipt points on the SoCalGas system. A certain amount of backbone transmission capacity is obtained for core customers to assure meeting their requirements.

Many if not most noncore customers now use a marketer to provide for several of the services formerly provided by the utility. That is, a noncore customer may simply arrange for a marketer to procure its supplies, and obtain any needed storage and backbone transmission capacity, in order to assure that it will receive its needed deliveries of natural gas supplies. Core customers still mainly rely on the utilities for procurement service, but they have the option to take procurement service from a CTA. Backbone transmission and storage capacity is either set aside or obtained for core customers in amounts to assure very high levels of service.

In order [to] properly operate their natural gas transmission pipeline and storage systems, PG&E and SoCalGas must balance the amount of gas received into the pipeline system and delivered to customers or to storage fields. Some of these utilities' storage capacity is dedicated to this service, and under most circumstances, customers do not need to precisely match their deliveries with their consumption. However, when too much or too little gas is expected to be delivered into the utilities' systems, relative to the amount being consumed, the utilities require customers to more precisely match up their deliveries with their consumption. And, if customers do not meet certain delivery requirements, they could face financial penalties. The utilities do not profit from these financial penalties - the amounts are then returned to customers as a whole. If the utilities find that they are unable to deliver all the gas that is expected to be consumed, they may even call for a curtailment of some gas deliveries. These curtailments are typically required for just the largest, noncore customers. It has been many years since there has been a significant curtailment of core customers in California." (15)

As indicated in the preceding discussions, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The CPUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

California accounts for less than 1% of total U.S. natural gas reserves and production. As with crude oil, California's natural gas production has experienced a gradual decline since 1985. In 2021, about 33% of the natural gas delivered to consumers went to the State's industrial sector, and about 31% was delivered to the electric power sector. Natural gas fueled more than two-fifths of the State's utility-scale electricity generation in 2021. The residential sector, where three-fifths of California households use natural gas for home heating, accounted for 22% of natural gas deliveries. The commercial sector received 12% of the deliveries to end users and the transportation sector consumed the remaining 1% (16).

Based on information provided by the Project applicant, no natural gas would be used as a result of the Project, and as such, use of natural gas is not considered in the analysis.

2.4 TRANSPORTATION ENERGY RESOURCES

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. The Department of Motor Vehicles (DMV) identified 36.2 million registered vehicles in California (6), and those vehicles consume an estimated 17.2 billion gallons of fuel each year.[1] Gasoline (and other vehicle fuels) are commercially provided commodities and would be available to the Project patrons and employees via commercial outlets.

California's on-road transportation system includes 396,616 lane miles, more than 26.6 million passenger vehicles and light trucks, and almost 9.0 million medium- and heavy-duty vehicles (6). While gasoline consumption has been declining since 2008 it is still by far the dominant fuel. California is the second-largest consumer of petroleum products, after Texas, and accounts for 8% of the nation's total consumption. The State is the largest U.S. consumer of motor gasoline and jet fuel, and 85% of the petroleum consumed in California is used in the transportation sector (16).

[1] Fuel consumptions estimated utilizing information from EMFAC2021.

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3 REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, the CPUC and the California Energy Commission (CEC) are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below.

3.1 FEDERAL REGULATIONS

3.1.1 INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991 (ISTEA)

The ISTEA promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

3.1.2 THE TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY (TEA-21)

The TEA-21 was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

3.2 CALIFORNIA REGULATIONS

3.2.1 INTEGRATED ENERGY POLICY REPORT (IEPR)

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301[a]). The CEC prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2023 IEPR was adopted February 2024, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2023 IEPR introduces a new framework for embedding equity and environmental justice at the CEC and the California Energy Planning Library which allows for easier access to energy data and analytics for a wide range of users. Additionally, energy reliability, western electricity integration, gasoline cost factors and price spikes, the role of hydrogen in California's clean energy future, fossil gas transition, and distributed energy resources are topics discussed within the 2023 IEPR (17).

3.2.2 STATE OF CALIFORNIA ENERGY PLAN

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies several strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

3.2.3 CALIFORNIA CODE TITLE 24, PART 6, ENERGY EFFICIENCY STANDARDS

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide $1.5 billion in consumer benefits and reduce GHG emissions by 10 million metric tons (18). The Project would be required to comply with the applicable standards in place at the time building permit document submittals are made. These require, among other items (19):

NONRESIDENTIAL MANDATORY MEASURES

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).

- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
    - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor- mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
    - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
    - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).

- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2)

3.2.4 AB 1493 PAVLEY REGULATIONS AND FUEL EFFICIENCY STANDARDS

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks). Although aimed at reducing GHG emissions, specifically, a co-benefit of the Pavley standards is an improvement in fuel efficiency and consequently a reduction in fuel consumption.

3.2.5 CALIFORNIA'S RENEWABLE PORTFOLIO STANDARD (RPS)

First established in 2002 under Senate Bill (SB) 1078, California's Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable resources to 44% of total retail sales by 2024 (20).

3.2.6 CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SB 350)

In October 2015, the legislature approved and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 45% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the CEC, and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States (California Leginfo 2015).

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4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

4.1 EVALUATION CRITERIA

Appendix F of the *State CEQA Guidelines* (21), states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas, and oil; and
- Increasing reliance on renewable energy sources.

In compliance with Appendix G of the *State CEQA Guidelines* (22), this report analyzes the Project's anticipated energy use during construction and operations to determine if the Project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

4.2 METHODOLOGY

Information from the CalEEMod Version 2022 outputs for the *Ethanac Business Park Air Quality Impact Analysis* (AQIA) (23) was utilized in this analysis, detailing Project-related construction equipment, transportation energy demands, and facility energy demands.

4.2.1 CALEEMOD

In May 2023, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2022.1.1.21. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage (24). Accordingly, the latest version of CalEEMod has been used to determine the proposed Project's anticipated transportation and facility energy demands. Outputs from the annual model runs are provided in Appendix 4.1.

4.2.2 EMISSION FACTORS MODEL

On May 2, 2022, the EPA approved the 2021 version of the EMissions FACtor model (EMFAC2021) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (25). This energy study utilizes the different fuel types for each vehicle class from the annual EMFAC2021 emission inventory in order to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. For purposes of

analysis, the 2025 analysis year was utilized to determine the average vehicle fuel economy used throughout the duration of the Project. Outputs from the EMFAC2021 model run is provided in Appendix 4.2.

4.3 CONSTRUCTION ENERGY DEMANDS

The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project.

4.3.1 CONSTRUCTION ELECTRICITY COST

The total Project construction electricity costs is the summation of the products of the area (sf) by the construction duration and the typical electricity cost.

CONSTRUCTION DURATION

For purposes of analysis, construction of the Project is expected to commence in February 2025 and would last through December 2025 (23). The construction schedule utilized in the analysis, shown in Table 4-1, represents a "worst-case" analysis scenario. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (26).

TABLE 4-1: CONSTRUCTION DURATION

Construction Activity	Start Date	End Date	Working Days
Offsite Grading	4/24/2025	6/5/2025	31
Offsite Paving	6/6/2025	7/18/2025	31
Demolition	2/3/2025	2/17/2025	11
Clear Site	2/18/2025	3/4/2025	11
Grading – Building Pad (Rough)	3/5/2025	4/23/2025	36
Grading – Building Pad (Fine) + Site (Rough)	4/24/2025	6/12/2025	36
Building Construction	6/13/2025	10/17/2025	91
Paving	10/20/2025	11/24/2025	26
Architectural Coating	11/25/2025	12/31/2025	27

PROJECT CONSTRUCTION POWER COST

The *2024 National Construction Estimator* identifies a typical electricity cost per 1,000 sf of construction per month of $2.66, which was used to calculate the Project's total construction power cost (27).

As shown in Table 4-2, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately $16,768.88.

TABLE 4-2: CONSTRUCTION POWER COST

Land Use	Power Cost (per 1,000 sf of construction per month)	Size (1,000 sf)	Construction Duration (months)	Project Construction Power Cost
Warehousing	$2.66	264.710	10	$7,041.29
Parking	$2.66	53.066	10	$1,411.56
Other Asphalt Surfaces	$2.66	181.953	10	$4,839.95
Road Widening	$2.66	130.680	10	$3,476.09
CONSTRUCTION POWER COST				***$16,768.88***

4.3.2 CONSTRUCTION ELECTRICITY USAGE

The total Project construction electricity usage is the summation of the quotients of the power cost (estimated in Table 4-2) divided by the utility provider cost per kilowatt hour (kWh) of electricity[2].

PROJECT CONSTRUCTION ELECTRICITY USAGE

The SCE's general service rate schedule was used to determine the Project's electrical usage. As of March 1, 2024, SCE's general service rate is approximately $0.15 per kilowatt hours (kWh) of electricity for industrial services (28). As shown in Table 4-3, the total electricity usage from on-site Project construction related activities is estimated to be approximately 114,354 kWh.

TABLE 4-3: CONSTRUCTION ELECTRICITY USAGE

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
Warehousing	$0.15	48,017
Parking	$0.15	9,626
Other Asphalt Surfaces	$0.15	33,006
Road Widening	$0.15	23,705
CONSTRUCTION ELECTRICITY USAGE		***114,354***

4.3.3 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction.

CONSTRUCTION EQUIPMENT

[2] It should be noted that the analysis relies on data provided in the 2024 National Construction Estimator, which provides estimated average electrical costs for construction activities based on the building square footage. This is a reputable source for construction cost estimating, and this data is not currently available elsewhere. Additionally, the use of electricity rates specific to the Project area yields a more conservative estimate of electricity usage.

A summary of construction equipment by phase is provided at Table 4-4. Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 4-4 would operate up to a total of eight (8) hours per day.

TABLE 4-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Activity	Equipment	Quantity	Hours Per Day
Offsite Grading	Rubber Tired Dozers	2	8
	Crawler Tractor	3	8
Offsite Paving	Pavers	2	8
	Paving Equipment	2	8
	Roller	2	8
Demolition	Concrete/Industrial Saws	1	8
	Excavators	3	8
	Rubber Tired Dozers	2	8
Clear Site	Rubber Tired Dozers	1	8
Grading – Building Pad (Rough)	Rubber Tired Dozers	1	8
	Scrapers	5	8
Grading – Building Pad (Fine) + Site (Rough)	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
Building Construction	Cranes	1	8
	Forklifts	4	8
	Generator Sets	2	8
	Tractors/Loaders/Backhoes	5	8
	Welders	2	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	2	8

PROJECT CONSTRUCTION EQUIPMENT FUEL CONSUMPTION

Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4-5. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer Guidelines (29). For the purposes of this analysis, the calculations are based on all construction equipment being diesel-powered, which is consistent with industry standards.

TABLE 4-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES

Activity/Duration	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption
Off-Site Grading	31	Crawler Tractors	87	3	8	0.43	898	1,504
		Rubber Tired Dozers	367	2	8	0.4	2,349	3,936
Off-Site Paving	31	Pavers	81	2	8	0.42	544	912
		Paving Equipment	89	2	8	0.36	513	859
		Rollers	36	2	8	0.38	219	367
Demolition	11	Rubber Tired Dozers	367	2	8	0.4	2,349	1,397
		Excavators	36	3	8	0.38	328	195
		Concrete/Industrial Saws	33	1	8	0.73	193	115
Clear Site	11	Rubber Tired Dozers	367	1	8	0.4	1,174	698
Grading - Building Pad (Rough)	36	Scrapers	423	5	8	0.48	8,122	15,804
		Rubber Tired Dozers	367	1	8	0.4	1,174	2,285
Grading – Building Pad (Fine) + Site (Rough)	36	Graders	148	1	8	0.41	485	945
		Rubber Tired Dozers	367	1	8	0.4	1,174	2,285
		Scrapers	423	2	8	0.48	3,249	6,322
Building Construction	91	Forklifts	82	4	8	0.2	525	2,581
		Generator Sets	14	2	8	0.74	166	815
		Cranes	367	1	8	0.29	851	4,188
		Welders	46	2	8	0.45	331	1,629
		Tractors/Loaders/Backhoes	84	5	8	0.37	1,243	6,115
Paving	26	Pavers	81	2	8	0.42	544	765
		Paving Equipment	89	2	8	0.36	513	720
		Rollers	36	2	8	0.38	219	308
Architectural Coating	27	Air Compressors	37	2	8	0.48	284	415
CONSTRUCTION FUEL DEMAND (GALLONS FUEL)								***55,161***

Diesel fuel would be supplied by existing commercial fuel providers serving the Project area and region.[3] As previously presented in Table 4-5, Project construction activities would consume an estimated 55,161 gallons of diesel fuel. Project construction would represent a "single-event" diesel fuel demand and would not require ongoing or permanent commitment of diesel fuel resources for this purpose.

4.3.4 CONSTRUCTION TRIPS AND VMT

Construction generates on-road vehicle emissions from vehicle usage for workers, vendors, and haul trucks commuting to and from the site. The number of workers, vendor, and haul trips are presented below in Table 4-6. It should be noted that for vendor trips specifically, CalEEMod only assigns vendor trips to the Building Construction phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for vendor trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

TABLE 4-6: CONSTRUCTION TRIPS AND VMT

Construction Activity	Worker Trips Per Day	Vendor Trips Per Day	Hauling Trips Per Day
Offsite Grading	13	1	0
Offsite Paving	15	0	0
Demolition	15	2	18
Clear Site	3	2	0
Grading – Building Pad (Rough)	15	7	0
Grading – Building Pad (Fine) + Site (Rough)	10	7	0
Building Construction	111	16	0
Paving	15	5	0
Architectural Coating	22	5	0

4.3.5 CONSTRUCTION WORKER FUEL ESTIMATES

With respect to estimated VMT for the Project, the construction worker trips (personal vehicles used by workers commuting to the Project from home) would generate an estimated 247,567 VMT during the 10 months of construction. Based on CalEEMod methodology, it is assumed that 50% of all construction worker trips are from light-duty-auto vehicles (LDA), 25% are from light-duty-trucks (LDT1[4]), and 25% are from light-duty-trucks (LDT2[5]). Data regarding Project related construction worker trips were based on CalEEMod defaults utilized within the AQIA.

[3] Based on Appendix A of the CalEEMod User's Guide, Construction consists of several types of off-road equipment. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel.

[4] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[5] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

Vehicle fuel efficiencies for LDA, LDT1, and LDT2 were estimated using information generated within the 2021 version of the EMFAC developed by CARB. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (25). EMFAC2021 was run for the LDA, LDT1, and LDT2 vehicle class within the Riverside (SC) sub-area for the 2025 calendar year. Data from EMFAC2021 is shown in Appendix 4.2.

TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES

Construction Activity	**Duration** (Days)	**Worker Trips/Day**	**Trip Length** (miles)	**VMT**	**Average Vehicle Fuel Economy** (mpg)	**Estimated Fuel Consumption** (gallons)
2025						
LDA						
Off-Site Grading	31	7	18.5	4,015	32.49	124
Off-Site Paving	31	8	18.5	4,588	32.49	141
Demolition	11	8	18.5	1,628	32.49	50
Clear Site	11	2	18.5	407	32.49	13
Grading – Building Pad (Rough)	36	8	18.5	5,328	32.49	164
Grading – Building Pad (Fine) + Site (Rough)	36	5	18.5	3,330	32.49	102
Building Construction	91	56	18.5	94,276	32.49	2,902
Paving	26	8	18.5	3,848	32.49	118
Architectural Coating	27	11	18.5	5,495	32.49	169
LDT1						
Off-Site Grading	31	4	18.5	2,294	25.14	91
Off-Site Paving	31	4	18.5	2,294	25.14	91
Demolition	11	4	18.5	814	25.14	32
Clear Site	11	1	18.5	204	25.14	8
Grading – Building Pad (Rough)	36	4	18.5	2,664	25.14	106
Grading – Building Pad (Fine) + Site (Rough)	36	3	18.5	1,998	25.14	79
Building Construction	91	28	18.5	47,138	25.14	1,875
Paving	26	4	18.5	1,924	25.14	77
Architectural Coating	27	6	18.5	2,997	25.14	119
LDT2						
Off-Site Grading	31	4	18.5	2,294	25.29	91
Off-Site Paving	31	4	18.5	2,294	25.29	91
Demolition	11	4	18.5	814	25.29	32

Construction Activity	Duration (Days)	Worker Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Clear Site	11	1	18.5	204	25.29	8
Grading – Building Pad (Rough)	36	4	18.5	2,664	25.29	105
Grading – Building Pad (Fine) + Site (Rough)	36	3	18.5	1,998	25.29	79
Building Construction	91	28	18.5	47,138	25.29	1,864
Paving	26	4	18.5	1,924	25.29	76
Architectural Coating	27	6	18.5	2,997	25.29	119
TOTAL CONSTRUCTION WORKER FUEL CONSUMPTION						***8,727***

As previously shown in Table 4-7, the estimated annual fuel consumption resulting from Project construction worker trips is 8,727 gallons during full construction of the Project. It should be noted that construction worker trips would represent a "single-event" gasoline fuel demand and would not require ongoing or permanent commitment of fuel resources for this purpose.

4.3.6 CONSTRUCTION VENDOR/HAULING FUEL ESTIMATES

With respect to estimated VMT, the construction vendor trips (vehicles that deliver materials to the site during construction) would generate an estimated 32,971 VMT along area roadways for the Project over the duration of construction activity. It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHD), 50% of all vendor trips are from heavy-heavy duty trucks (HHD), and 100% of all hauling trips are from HHDs. These assumptions are consistent with the CalEEMod defaults utilized within the within the AQIA (23). Vehicle fuel efficiencies for MHDs and HHDs were estimated using information generated within EMFAC2021. EMFAC2021 was run for the MHD and HHD vehicle classes within the Riverside (SC) sub-area for the 2025 calendar year. Data from EMFAC2021 is shown in Appendix 4.2.

Based on Table 4-8, it is estimated that 4,748 gallons of fuel will be consumed related to construction vendor trips during full construction of the Project. It should be noted that Project construction vendor trips would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

TABLE 4-8: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES

Construction Activity	Duration (Days)	Vendor Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2025						
MHD						
Off-Site Grading	31	1	10.2	316	8.58	37
Off-Site Paving	31	0	10.2	0	8.58	0
Demolition	11	1	10.2	112	8.58	13

Construction Activity	Duration (Days)	Vendor Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Clear Site	11	1	10.2	112	8.58	13
Grading – Building Pad (Rough)	36	4	10.2	1,469	8.58	171
Grading – Building Pad (Fine) + Site (Rough)	36	4	10.2	1,469	8.58	171
Building Construction	91	8	10.2	7,426	8.58	865
Paving	26	3	10.2	796	8.58	93
Architectural Coating	27	3	10.2	826	8.58	96
HHD (Vendor)						
Off-Site Grading	31	1	10.2	316	6.22	51
Off-Site Paving	31	0	10.2	0	6.22	0
Demolition	11	1	10.2	112	6.22	18
Clear Site	11	1	10.2	112	6.22	18
Grading – Building Pad (Rough)	36	4	10.2	1,469	6.22	236
Grading – Building Pad (Fine) + Site (Rough)	36	4	10.2	1,469	6.22	236
Building Construction	91	8	10.2	7,426	6.22	1,194
Paving	26	3	10.2	796	6.22	128
Architectural Coating	27	3	10.2	826	6.22	133
HHD (Hauling)						
Demolition	11	18	40	7,920	6.22	1,274
TOTAL CONSTRUCTION VENDOR FUEL CONSUMPTION						***4,748***

4.3.7 CONSTRUCTION ENERGY EFFICIENCY/CONSERVATION MEASURES

Starting in 2014, CARB adopted the nation's first regulation aimed at cleaning up off-road construction equipment such as bulldozers, graders, and backhoes. These requirements ensure fleets gradually turnover the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment. As such, the equipment used for Project construction would conform to CARB regulations and California emissions standards. It should also be noted that there are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in the construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

Construction contractors would be required to comply with applicable CARB regulations regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other

Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additional construction-source energy efficiencies would occur due to required California regulations and best available control measures (BACM). For example, CCR Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Section 2449(d)(3) requires that grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling. In this manner, construction equipment operators are required to be informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

A full analysis related to the energy needed to form construction materials is not included in this analysis due to a lack of detailed Project-specific information on construction materials. At this time, an analysis of the energy needed to create Project-related construction materials would be extremely speculative and thus has not been prepared. Further, the California Natural Resources Agency has stated that "a full 'lifecycle' analysis that would account for energy used in building materials and consumer products will generally not be required" (California Natural Resources Agency, *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines* (Nov. 2018) pp. 41–42),

In general, construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing, and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as well as the transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

4.4 Operational Energy Demands

Energy consumption in support of or related to Project operations would include transportation fuel demands (fuel consumed by passenger car and truck vehicles accessing the Project site), fuel demands from operational equipment, and facilities energy demands (energy consumed by building operations and site maintenance activities).

4.4.1 Transportation Fuel Demands

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. The VMT per vehicle class can be determined by evaluating the vehicle fleet mix and the total VMT.

As with construction worker and vendors trips, operational vehicle fuel efficiencies were estimated using information generated within EMFAC2021 developed by CARB (25). EMFAC2021 was run for the Riverside (SC) sub-area for the 2026 calendar year. Data from EMFAC2021 is shown in Appendix 4.2.

The estimated transportation energy demands were previously summarized in Table 4-9. As summarized in Table 4-9, the Project would result in 2,798,143 annual VMT and an estimated annual fuel consumption of 225,103 gallons of fuel.

TABLE 4-9: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION

Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual VMT	Estimated Annual Fuel Consumption (gallons)
LDA	33.43	802,892	24,014
LDT1	25.70	61,520	2,394
LDT2	26.01	331,584	12,749
MDV	20.88	256,210	12,271
LHDT1	16.89	175,994	10,418
LHDT2	16.01	50,175	3,134
MHDT	8.71	274,633	31,547
HHDT	6.33	807,746	127,687
MCY	42.07	37,389	889
TOTAL (ALL VEHICLES)		***2,798,143***	***225,103***

4.4.2 STATIONARY SOURCE ENERGY DEMANDS

Fuel consumption estimates from stationary sources are presented in Table 4-10. As previously stated, the aggregate fuel consumption rate for all equipment is estimated at 18.5 hp-hr-gal., obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines. For the purposes of this analysis, the calculations are based on a 300 hp diesel-fueled generator. Diesel fuel would be supplied by existing commercial fuel providers serving the region. As presented in Table 4-10, Project stationary sources would consume an estimated 592 gallons of diesel fuel.

TABLE 4-10: STATIONARY SOURCE EQUIPMENT FUEL CONSUMPTION ESTIMATES

Equipment	HP Rating	Quantity	Usage Hours	Annual Hourly Usage	Load Factor	HP-hrs/day	Total Fuel Consumption
Fire Pump	300	1	1	50	0.73	219	592
STATIONARY SOURCE FUEL DEMAND (GALLONS DIESEL FUEL)							***592***

4.4.3 On-Site Cargo Handling Equipment Fuel Demands

It is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. Consistent with the City of Menifee's Industrial Good Neighbor Policies (30), the analysis assumes that all on-site cargo handling equipment would be electric powered.

4.4.4 Facility Energy Demands

Project building operations activities would result in the consumption of electricity, which would be supplied to the Project by SCE. Electricity usage associated with the Project was estimated based on data provided by the Project Applicant. As summarized in Table 4-11, the Project would consume 1,264,842 kWh/year of electricity.

Based on information provided by the Project Applicant, the Project would not use natural gas for the building envelope. As such, natural gas consumption has not been analyzed in this study.

TABLE 4-11: PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY

Land Use	Electricity Demand (kWh/year)
Warehousing	1,218,288
Parking	46,553
TOTAL PROJECT ENERGY DEMAND	***1,264,842***

4.4.5 Operational Energy Efficiency/Conservation Measures

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title 24, California Green Building Standards Code).

Enhanced Vehicle Fuel Efficiencies

Project annual fuel consumption estimates presented previously in Table 4-9 represent likely potential maximums that would occur for the Project. Under subsequent future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. The location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands.

4.5 SUMMARY

4.5.1 CONSTRUCTION ENERGY DEMANDS

The estimated cost of on-site electricity usage during the construction of the Project is assumed to be approximately $16,768.88. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project buildout, is calculated to be approximately 114,354 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 55,161 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. BACMs inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 8,727 gallons of fuel. Additionally, fuel consumption from construction vendor and hauling trips (MHDs and HHDs) will total approximately 4,748 gallons. Diesel fuel would be supplied by City and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved using bulk purchases, transport and use of construction materials. The 2023 IEPR released by the CEC has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements (31). As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.5.2 OPERATIONAL ENERGY DEMANDS

TRANSPORTATION ENERGY DEMANDS

Annual vehicular trips and related VMT generated by the operation of the Project would result in a fuel demand of 225,103 gallons of fuel.

Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other industrial uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Ed., 2021); and CalEEMod. As such, Project operations would not result in excessive and wasteful vehicle trips and VMT, nor excess and wasteful vehicle energy consumption compared to other industrial uses.

It should be noted that the state strategy for the transportation sector for medium and heavy-duty trucks is focused on making trucks more efficient and expediting truck turnover rather than reducing VMT from trucks. This is in contrast to the passenger vehicle component of the transportation sector where both per-capita VMT reductions and an increase in vehicle efficiency are forecasted to be needed to achieve the overall state emissions reductions goals.

Heavy duty trucks involved in goods movements are generally controlled on the technology side and through fleet turnover of older trucks and engines to newer and cleaner trucks and engines. The first battery-electric heavy-heavy duty trucks are being tested this year and SCAQMD is looking to integrate this new technology into large-scale truck operations. The following state strategies reduce GHG emissions and energy fuel consumption from the medium and heavy-duty trucks:

- CARB's Mobile Source Strategy focuses on reducing GHGs through the transition to zero and low emission vehicles and from medium-duty and heavy-duty trucks.
- CARB's Sustainable Freight Action Plan establishes a goal to improve freight efficiency by 25% by 2030, deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
- CARB's Emissions Reduction Plan for Ports and Goods Movement (Goods Movement Plan) in California focuses on reducing heavy-duty truck-related emissions focus on establishment of emissions standards for trucks, fleet turnover, truck retrofits, and restriction on truck idling (CARB 2006). While the focus of Goods Movement Plan is to reduce criteria air pollutant and air toxic emissions, the strategies to reduce these pollutants would also generally have a beneficial effect in reducing GHG emissions.
- CARB's On-Road Truck and Bus Regulation (2010) requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent (32).
- CARB's Heavy-Duty (Tractor-Trailer) GHG Regulation requires SmartWay tractor trailers that include idle-reduction technologies, aerodynamic technologies, and low-rolling resistant tires that would reduce fuel consumption and associated GHG emissions.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. The location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project will include sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. In compliance with the California Green Building Standards Code and County requirements, the Project would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle parking accommodations. Additionally, as noted in the Ethanac Business Park VMT Assessment, the Project would include transportation measures which would reduce energy consumption such as

commute trip reduction program which would encourage carpooling, taking transit, walking, and biking, thereby reducing VMT, ridesharing program which encourages carpooled vehicle trips in place of single-occupied vehicle trips, thereby reducing the number of trips and VMT, and end-of-trip bicycle facilities which would ensures provision and maintenance of secure bike parking and related facilities encourages commuting by bicycle, thereby reducing VMT and GHG emissions (33). As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

FACILITY ENERGY DEMANDS

Project facility operational energy demands are estimated to be: 1,264,842 kWh/year of electricity which would be supplied by SCE. Based on information provided by the Project Applicant, the Project would not use natural gas. As such, natural gas consumption has not been analyzed in this study. The Project proposes conventional industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other industrial uses of similar scale and configuration.

Implementation of the Project would increase the demand for electricity at the Project site and petroleum consumption in the region during operation. However, the electrical consumption demands of the Project during operation would conform to the state's Title 24 and to CALGreen standards, which implement conservation measures. Additionally, per Title 24 requirements, the Project would be required to incorporate solar for the office portion of the building. Construction and operation of the Project will not preclude the use of renewable energy options. Depending upon the ultimate end user of the Project, such an end user can incorporate additional solar energy generation facilities or other renewable energy sources. Further, the proposed Project would not directly require the construction of new energy generation or supply facilities and providers of electricity are in compliance with regulatory requirements that assist in conservation, including requirements that electrical providers achieve state-mandated renewal energy production requirements. With compliance with Title 24 conservation standards and other regulatory requirements, the Project would not be wasteful or inefficient or unnecessarily consume energy resources during construction or operation and would result in a less-than-significant impact with respect to consumption of energy resources. Lastly, the Project will comply with the applicable 2022 Title 24 standards. Compliance with applicable Title 24 standards will ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

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5 CONCLUSIONS

5.1 ENERGY IMPACT 1

Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Impact Analysis

A significant impact would occur if the proposed Project would result in the inefficient, wasteful, or unnecessary use of energy.

Construction

Based on CalEEMod estimations within the modeling output files used to estimate GHG emissions associated with future development projects, construction-related vehicle trips would result in approximately 280,538 VMT and consume an estimated 13,475 gallons of gasoline and diesel combined during future development projects construction phases. Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California Code of Regulations, Title 13, Sections 2449 and 2485, limit idling from both on-road and off-road diesel- powered equipment and are enforced by the ARB. Additionally, given the cost of fuel, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

Due to the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient manner, the construction phase of the proposed Project would not result in wasteful, inefficient, and unnecessary consumption of energy. Therefore, the construction-related impacts related to electricity and fuel consumption would be less than significant.

Operation

Electricity and Natural Gas

Operation of the proposed Project would consume energy as part of building operations and transportation activities. Building operations would involve energy consumption for multiple purposes including, but not limited to, building heating and cooling, refrigeration, lighting, and electronics. Based on CalEEMod energy use estimations, operations for the Project would consume approximately 1,264,842 kWh of electricity.

Future development projects would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the California Title 24 energy efficiency standards. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building. For example, the Title 24 Lighting Power Density requirements define the maximum wattage of lighting that can be used in a building based on its square footage. Title 24 standards are widely

regarded as the most advanced energy efficiency standards, would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation.

Fuel

Operational energy would also be consumed during vehicle trips associated with the proposed Project, including employee trips and truck trips. Based on CalEEMod energy use estimations, project-related vehicle trips would result in approximately 2,798,143 VMT and consume an estimated 225,103 gallons of gasoline and diesel combined, annually (see Appendix 4.1).

Additionally, the Project will also be providing parking and EV infrastructure that would further promote fuel efficient vehicles. Additionally, per Title 24 requirements, the Project would be required to incorporate solar for the office portion of the building. Further, as discussed above, construction and operation of the Project will not preclude the incorporation of renewable energy options. For these reasons, operational-related transportation fuel consumption would not result in a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, the operational impact related to vehicle fuel consumption would be less than significant.

5.2 ENERGY IMPACT 2

Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Impact Analysis

A significant impact would occur if the proposed Project would conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Construction

As discussed in Section 5.1, above, the proposed Project would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment, and the use of electricity for temporary buildings, lighting, and other sources. California Code of Regulations Title 13, Sections 2449 and 2485, limit idling from both on- road and off-road diesel-powered equipment and are enforced by the ARB. The proposed Project would comply with these regulations. There are no policies at the local level applicable to energy conservation specific to the construction phase. Thus, it is anticipated that construction of the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, construction-related energy efficiency and renewable energy standards consistency impacts would be less than significant.

Operation

California's Renewable Portfolio Standard (RPS) establishes a goal of renewable energy for local providers to be 44 percent by 2040. Similarly, the State is promoting renewable energy targets

to meet the 2022 Scoping Plan greenhouse gas emissions reductions. As discussed in Section 5.1, above, the Project would consume approximately 1,264,842 kWh of electricity annually.

The Project would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the California Title 24 energy efficiency standards. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building. For example, the Title 24 Lighting Power Density requirements define the maximum wattage of lighting that can be used in a building based on its square footage. Title 24 standards, widely regarded as the most advanced energy efficiency standards, would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation. Additionally, per Title 24 requirements, the Project would be required to incorporate solar for the office portion of the building.

Compliance with the aforementioned standards would ensure that the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, operational energy efficiency and renewable energy standards consistency impacts would be less than significant.

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7 CERTIFICATIONS

The contents of this energy analysis report represent an accurate depiction of the environmental impacts associated with the proposed Ethanac Business Park. The information contained in this energy analysis report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com.

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Master of Science in Environmental Studies
California State University, Fullerton • May 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Professionals
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
Air Dispersion Modeling – Lakes Environmental • June 2006

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APPENDIX 4.1:

CALEEMOD PROJECT EMISSIONS MODEL OUTPUTS

15796 - Ethanac Business Park Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15796 - Ethanac Business Park
Construction Start Date	9/2/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	0.20
Location	33.73974846447821, -117.18160035687643
County	Riverside-South Coast
City	Menifee
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5517
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Unrefrigerated Warehouse-No Rail	265	1000sqft	6.08	264,710	58,864	—	—	Passenger Car Trips
Parking Lot	215	Space	1.22	0.00	0.00	—	—	—
Other Asphalt Surfaces	4.18	Acre	4.18	0.00	0.00	—	—	—
Road Widening	0.35	Mile	3.00	0.00	0.00	—	—	—
User Defined Industrial	265	User Defined Unit	0.00	0.00	0.00	—	—	Truck Trips

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.42	1.30	26.7	54.5	0.10	0.25	6.58	6.76	0.23	2.83	3.02	—	11,274	11,274	0.45	0.18	7.92	11,325
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.31	48.0	26.8	54.2	0.10	0.25	3.34	3.55	0.24	1.09	1.30	—	11,257	11,257	0.45	0.44	0.19	11,307
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.59	4.16	10.8	20.4	0.03	0.11	1.50	1.61	0.10	0.51	0.61	—	4,019	4,019	0.16	0.09	1.11	4,050
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.11	0.76	1.97	3.71	0.01	0.02	0.27	0.29	0.02	0.09	0.11	—	665	665	0.03	0.01	0.18	671

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.42	1.30	26.7	54.5	0.10	0.25	6.58	6.76	0.23	2.83	3.02	—	11,274	11,274	0.45	0.18	7.92	11,325
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.31	48.0	26.8	54.2	0.10	0.25	3.34	3.55	0.24	1.09	1.30	—	11,257	11,257	0.45	0.44	0.19	11,307
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.59	4.16	10.8	20.4	0.03	0.11	1.50	1.61	0.10	0.51	0.61	—	4,019	4,019	0.16	0.09	1.11	4,050
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.11	0.76	1.97	3.71	0.01	0.02	0.27	0.29	0.02	0.09	0.11	—	665	665	0.03	0.01	0.18	671

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.10	10.5	17.3	35.5	0.17	0.41	8.15	8.55	0.39	2.12	2.51	251	19,811	20,062	26.0	2.44	51.9	21,491
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.98	8.53	17.9	20.7	0.17	0.39	8.15	8.53	0.37	2.12	2.49	251	19,461	19,712	26.0	2.45	1.35	21,092

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.94	8.57	11.6	21.9	0.12	0.21	5.96	6.17	0.20	1.55	1.75	251	14,431	14,682	25.8	1.87	16.4	15,903
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.54	1.56	2.12	4.00	0.02	0.04	1.09	1.13	0.04	0.28	0.32	41.6	2,389	2,431	4.28	0.31	2.71	2,633

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.97	1.57	14.4	21.5	0.17	0.24	8.15	8.39	0.23	2.12	2.35	—	17,660	17,660	0.35	2.13	51.9	18,357
Area	2.05	7.93	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Stationary	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	5.10	10.5	17.3	35.5	0.17	0.41	8.15	8.55	0.39	2.12	2.51	251	19,811	20,062	26.0	2.44	51.9	21,491
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.90	1.51	15.1	18.2	0.16	0.24	8.15	8.39	0.23	2.12	2.35	—	17,358	17,358	0.35	2.14	1.35	18,006
Area	—	6.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469

Stationar	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	2.98	8.53	17.9	20.7	0.17	0.39	8.15	8.53	0.37	2.12	2.49	251	19,461	19,712	26.0	2.45	1.35	21,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.39	1.10	11.2	13.7	0.12	0.18	5.96	6.13	0.17	1.55	1.72	—	12,730	12,730	0.26	1.57	16.4	13,220
Area	1.40	7.33	0.07	7.88	< 0.005	0.01	—	0.01	0.01	—	0.01	—	32.4	32.4	< 0.005	< 0.005	—	32.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Stationary	0.15	0.13	0.38	0.34	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	69.0	69.0	< 0.005	< 0.005	0.00	69.2
Total	2.94	8.57	11.6	21.9	0.12	0.21	5.96	6.17	0.20	1.55	1.75	251	14,431	14,682	25.8	1.87	16.4	15,903
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.25	0.20	2.04	2.50	0.02	0.03	1.09	1.12	0.03	0.28	0.31	—	2,108	2,108	0.04	0.26	2.71	2,189
Area	0.26	1.34	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	199	199	0.02	< 0.005	—	200
Water	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150
Waste	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7
Stationary	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5
Total	0.54	1.56	2.12	4.00	0.02	0.04	1.09	1.13	0.04	0.28	0.32	41.6	2,389	2,431	4.28	0.31	2.71	2,633

3. Construction Emissions Details

3.1. Off-Site Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	0.47	10.9	20.8	0.04	0.07	—	0.07	0.07	—	0.07	—	3,802	3,802	0.15	0.03	—	3,815
Dust From Material Movement	—	—	—	—	—	—	3.82	3.82	—	1.80	1.80	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.93	1.77	< 0.005	0.01	—	0.01	0.01	—	0.01	—	323	323	0.01	< 0.005	—	324
Dust From Material Movement	—	—	—	—	—	—	0.32	0.32	—	0.15	0.15	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.17	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	53.5	53.5	< 0.005	< 0.005	—	53.6
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.97	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	176	176	0.01	0.01	0.65	179
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.6	30.6	< 0.005	< 0.005	0.09	32.1
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.9	13.9	< 0.005	< 0.005	0.02	14.1
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.60	2.60	< 0.005	< 0.005	< 0.005	2.72
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.31	2.31	< 0.005	< 0.005	< 0.005	2.34
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.45
Hauling	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	0.00

3.3. Off-Site Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,517
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.61	0.90	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.11	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	1.16	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	211	211	0.01	0.01	0.78	215
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.03	17.0
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.77	2.77	< 0.005	< 0.005	< 0.005	2.81
Vendor	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	0.00

Hauling	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	0.00

3.5. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41	0.41	11.9	18.2	0.03	0.20	—	0.20	0.19	—	0.19	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.59	1.59	—	0.24	0.24	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.36	0.55	< 0.005	0.01	—	0.01	0.01	—	0.01	—	103	103	< 0.005	< 0.005	—	104
Demolition	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.1	17.1	< 0.005	< 0.005	—	17.1
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	61.2	61.2	< 0.005	0.01	< 0.005	64.0
Hauling	0.08	0.03	2.67	0.51	0.02	0.05	0.66	0.71	0.05	0.19	0.24	—	2,503	2,503	0.04	0.39	0.14	2,621
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.93	5.93	< 0.005	< 0.005	0.01	6.02
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.93
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	75.4	75.4	< 0.005	0.01	0.07	79.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.98	0.98	< 0.005	< 0.005	< 0.005	1.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.5	12.5	< 0.005	< 0.005	0.01	13.1

3.7. Clear Site (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	3.34	6.73	0.01	0.03	—	0.03	0.03	—	0.03	—	1,378	1,378	0.06	0.01	—	1,383
Dust From Material Movement	—	—	—	—	—	—	1.70	1.70	—	0.88	0.88	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.10	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.5	41.5	< 0.005	< 0.005	—	41.7
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.87	6.87	< 0.005	< 0.005	—	6.90
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.4	32.4	< 0.005	< 0.005	< 0.005	32.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	61.2	61.2	< 0.005	0.01	< 0.005	64.0
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.93
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
Hauling	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	0.00

3.9. Grading - Building Pad (Rough) (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.23	26.4	53.3	0.10	0.20	—	0.20	0.20	—	0.20	—	10,849	10,849	0.44	0.09	—	10,886
Dust From Material Movement	—	—	—	—	—	—	3.08	3.08	—	1.02	1.02	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.23	26.4	53.3	0.10	0.20	—	0.20	0.20	—	0.20	—	10,849	10,849	0.44	0.09	—	10,886
Dust From Material Movement	—	—	—	—	—	—	3.08	3.08	—	1.02	1.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.12	2.61	5.26	0.01	0.02	—	0.02	0.02	—	0.02	—	1,070	1,070	0.04	0.01	—	1,074
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.48	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	177	177	0.01	< 0.005	—	178
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	1.16	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	211	211	0.01	0.01	0.78	215

Vendor	0.01	< 0.005	0.24	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	214	214	< 0.005	0.03	0.61	225
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	0.01	< 0.005	0.25	0.08	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	214	214	< 0.005	0.03	0.02	224
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	0.03	19.7
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.03	22.1
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.21	3.21	< 0.005	< 0.005	0.01	3.26
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.50	3.50	< 0.005	< 0.005	< 0.005	3.66
Hauling	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	0.00

3.11. Grading – Building Pad (Fine) + Site (Rough) (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.67	14.9	29.3	0.05	0.11	—	0.11	0.11	—	0.11	—	5,735	5,735	0.23	0.05	—	5,754

Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	1.47	2.89	0.01	0.01	—	0.01	0.01	—	0.01	—	566	566	0.02	< 0.005	—	568
Dust From Material Movement	—	—	—	—	—	—	0.24	0.24	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.27	0.53	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.6	93.6	< 0.005	< 0.005	—	94.0
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.77	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	141	141	0.01	< 0.005	0.52	143
Vendor	0.01	< 0.005	0.24	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	214	214	< 0.005	0.03	0.61	225
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.9	12.9	< 0.005	< 0.005	0.02	13.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.03	22.1
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.14	2.14	< 0.005	< 0.005	< 0.005	2.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.50	3.50	< 0.005	< 0.005	< 0.005	3.66
Hauling	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	0.00

3.13. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.49	14.1	22.3	0.04	0.15	—	0.15	0.15	—	0.15	—	3,675	3,675	0.15	0.03	—	3,688
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.49	14.1	22.3	0.04	0.15	—	0.15	0.15	—	0.15	—	3,675	3,675	0.15	0.03	—	3,688
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.12	3.52	5.56	0.01	0.04	—	0.04	0.04	—	0.04	—	916	916	0.04	0.01	—	919
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.64	1.01	< 0.005	0.01	—	0.01	0.01	—	0.01	—	152	152	0.01	< 0.005	—	152
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60	0.50	0.49	8.59	0.00	0.00	1.45	1.45	0.00	0.34	0.34	—	1,567	1,567	0.06	0.06	5.76	1,591
Vendor	0.02	0.01	0.54	0.17	< 0.005	0.01	0.14	0.14	0.01	0.04	0.05	—	490	490	0.01	0.07	1.39	513
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.53	0.47	0.54	6.49	0.00	0.00	1.45	1.45	0.00	0.34	0.34	—	1,440	1,440	0.07	0.06	0.15	1,459
Vendor	0.02	0.01	0.56	0.17	< 0.005	0.01	0.14	0.14	0.01	0.04	0.05	—	490	490	0.01	0.07	0.04	512
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.15	1.71	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	364	364	0.02	0.01	0.62	369
Vendor	0.01	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	122	122	< 0.005	0.02	0.15	128
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.03	0.31	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	60.2	60.2	< 0.005	< 0.005	0.10	61.1

Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.2	20.2	< 0.005	< 0.005	0.02	21.2
Hauling	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	0.00

3.15. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.51	0.76	< 0.005	0.01	—	0.01	0.01	—	0.01	—	108	108	< 0.005	< 0.005	—	108
Paving	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.09	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.8	17.8	< 0.005	< 0.005	—	17.9
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	0.01	< 0.005	0.18	0.05	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	153	153	< 0.005	0.02	0.01	160
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.02	14.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.9	10.9	< 0.005	< 0.005	0.01	11.4
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.32	2.32	< 0.005	< 0.005	< 0.005	2.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.80	1.80	< 0.005	< 0.005	< 0.005	1.89
Hauling	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	0.00

3.17. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.06	0.06	2.85	2.57	< 0.005	0.08	—	0.08	0.08	—	0.08	—	356	356	0.01	< 0.005	—	357
Architectural Coatings	—	47.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.21	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.3	26.3	< 0.005	< 0.005	—	26.4
Architectural Coatings	—	3.54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.36	4.36	< 0.005	< 0.005	—	4.38
Architectural Coatings	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.09	0.11	1.30	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	288	288	0.01	0.01	0.03	292
Vendor	0.01	< 0.005	0.18	0.05	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	153	153	< 0.005	0.02	0.01	160
Hauling	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.6	21.6	< 0.005	< 0.005	0.04	21.9
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.01	11.9
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.57	3.57	< 0.005	< 0.005	0.01	3.62
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.87	1.87	< 0.005	< 0.005	< 0.005	1.96
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.40	1.26	0.83	17.7	0.04	0.02	3.88	3.90	0.02	0.98	1.00	—	3,992	3,992	0.12	0.09	13.2	4,034
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00

User Defined Industrial	0.57	0.32	13.6	3.82	0.13	0.22	4.26	4.48	0.21	1.14	1.35	—	13,668	13,668	0.22	2.05	38.7	14,322
Total	1.97	1.57	14.4	21.5	0.17	0.24	8.15	8.39	0.23	2.12	2.35	—	17,660	17,660	0.35	2.13	51.9	18,357
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.34	1.20	0.92	14.3	0.04	0.02	3.88	3.90	0.02	0.98	1.00	—	3,686	3,686	0.13	0.09	0.34	3,717
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.56	0.31	14.2	3.84	0.13	0.22	4.26	4.49	0.21	1.14	1.35	—	13,672	13,672	0.22	2.05	1.00	14,289
Total	1.90	1.51	15.1	18.2	0.16	0.24	8.15	8.39	0.23	2.12	2.35	—	17,358	17,358	0.35	2.14	1.35	18,006
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.18	0.16	0.13	1.99	< 0.005	< 0.005	0.52	0.52	< 0.005	0.13	0.13	—	452	452	0.02	0.01	0.69	456
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.08	0.04	1.92	0.51	0.02	0.03	0.57	0.60	0.03	0.15	0.18	—	1,656	1,656	0.03	0.25	2.03	1,732
Total	0.25	0.20	2.04	2.50	0.02	0.03	1.09	1.12	0.03	0.28	0.31	—	2,108	2,108	0.04	0.26	2.71	2,189

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,156	1,156	0.11	0.01	—	1,162
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	44.2	44.2	< 0.005	< 0.005	—	44.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,200	1,200	0.11	0.01	—	1,207
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,156	1,156	0.11	0.01	—	1,162
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	44.2	44.2	< 0.005	< 0.005	—	44.4

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,200	1,200	0.11	0.01	—	1,207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	191	191	0.02	< 0.005	—	192
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	7.31	7.31	< 0.005	< 0.005	—	7.35
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	199	199	0.02	< 0.005	—	200

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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

Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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

Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.05	1.89	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Total	2.05	7.93	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39
Total	0.26	1.34	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5
Total	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Off-Site Grading	Linear, Grading & Excavation	4/24/2025	6/5/2025	5.00	31.0	—
Off-Site Paving	Linear, Paving	6/6/2025	7/18/2025	5.00	31.0	—
Demolition	Demolition	2/3/2025	2/17/2025	5.00	11.0	—
Clear Site	Site Preparation	2/18/2025	3/4/2025	5.00	11.0	—

Grading - Building Pad (Rough)	Grading	3/5/2025	4/23/2025	5.00	36.0	—
Grading – Building Pad (Fine) + Site (Rough)	Grading	4/24/2025	6/12/2025	5.00	36.0	—
Building Construction	Building Construction	6/13/2025	10/17/2025	5.00	91.0	—
Paving	Paving	10/20/2025	11/24/2025	5.00	26.0	—
Architectural Coating	Architectural Coating	11/25/2025	12/31/2025	5.00	27.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Off-Site Grading	Crawler Tractors	Diesel	Tier 4 Interim	3.00	8.00	87.0	0.43
Off-Site Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40
Off-Site Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Off-Site Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Off-Site Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Tier 4 Interim	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Clear Site	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading - Building Pad (Rough)	Scrapers	Diesel	Tier 4 Interim	5.00	8.00	423	0.48
Grading - Building Pad (Rough)	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading – Building Pad (Fine) + Site (Rough)	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading – Building Pad (Fine) + Site (Rough)	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40

Grading – Building Pad (Fine) + Site (Rough)	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Building Construction	Forklifts	Diesel	Tier 4 Interim	4.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Interim	2.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	8.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Interim	2.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	5.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	2.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	2.00	10.2	HHDT,MHDT
Demolition	Hauling	18.4	40.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Clear Site	—	—	—	—
Clear Site	Worker	2.50	18.5	LDA,LDT1,LDT2
Clear Site	Vendor	2.00	10.2	HHDT,MHDT
Clear Site	Hauling	0.00	20.0	HHDT
Clear Site	Onsite truck	—	—	HHDT
Grading - Building Pad (Rough)	—	—	—	—

Grading - Building Pad (Rough)	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading - Building Pad (Rough)	Vendor	7.00	10.2	HHDT,MHDT
Grading - Building Pad (Rough)	Hauling	0.00	20.0	HHDT
Grading - Building Pad (Rough)	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	111	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	16.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	5.00	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	22.2	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	5.00	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Grading – Building Pad (Fine) + Site (Rough)	—	—	—	—
Grading – Building Pad (Fine) + Site (Rough)	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading – Building Pad (Fine) + Site (Rough)	Vendor	7.00	10.2	HHDT,MHDT
Grading – Building Pad (Fine) + Site (Rough)	Hauling	0.00	20.0	HHDT
Grading – Building Pad (Fine) + Site (Rough)	Onsite truck	—	—	HHDT

Off-Site Grading	—	—	—	—
Off-Site Grading	Worker	12.5	18.5	LDA,LDT1,LDT2
Off-Site Grading	Vendor	1.00	10.2	HHDT,MHDT
Off-Site Grading	Hauling	0.00	20.0	HHDT
Off-Site Grading	Onsite truck	—	—	HHDT
Off-Site Paving	—	—	—	—
Off-Site Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Off-Site Paving	Vendor	0.00	10.2	HHDT,MHDT
Off-Site Paving	Hauling	0.00	20.0	HHDT
Off-Site Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	397,065	132,355	14,113

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Off-Site Grading	—	—	3.00	0.00	—
Demolition	0.00	0.00	0.00	17,562	—
Clear Site	—	—	5.50	0.00	—

Grading - Building Pad (Rough)	—	—	198	0.00	—
Grading – Building Pad (Fine) + Site (Rough)	—	—	108	0.00	—
Paving	0.00	0.00	0.00	0.00	8.40

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.22	100%
Other Asphalt Surfaces	4.18	100%
Road Widening	3.00	100%
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	349	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year

Unrefrigerated Warehouse-No Rail	294	25.7	10.3	78,551	5,577	487	196	1,489,595
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	162	14.0	5.56	43,258	4,901	424	168	1,308,548

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	397,065	132,355	14,113

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)

Unrefrigerated Warehouse-No Rail	1,218,288	346	0.0330	0.0040	0.00
Parking Lot	46,553	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
User Defined Industrial	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	61,214,187	933,331
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	249	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	1.00	1.00	50.0	300	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.8	annual days of extreme heat
Extreme Precipitation	2.60	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.89	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	49.2
AQ-DPM	31.8
Drinking Water	10.2
Lead Risk Housing	16.1
Pesticides	27.2
Toxic Releases	23.1
Traffic	72.3
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	22.1
Haz Waste Facilities/Generators	23.7
Impaired Water Bodies	0.00
Solid Waste	52.9
Sensitive Population	—
Asthma	42.3
Cardio-vascular	74.9

Low Birth Weights	9.85
Socioeconomic Factor Indicators	—
Education	58.9
Housing	12.8
Linguistic	7.38
Poverty	50.7
Unemployment	30.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	31.83626331
Employed	9.39304504
Median HI	19.47901963
Education	—
Bachelor's or higher	31.46413448
High school enrollment	100
Preschool enrollment	61.41408957
Transportation	—
Auto Access	91.71050943
Active commuting	43.93686642
Social	—
2-parent households	8.456306942
Voting	25.54856923
Neighborhood	—
Alcohol availability	85.78211215

Park access	2.194276915
Retail density	15.48825869
Supermarket access	15.07763377
Tree canopy	1.077890414
Housing	—
Homeownership	92.2751187
Housing habitability	54.38213782
Low-inc homeowner severe housing cost burden	5.658924676
Low-inc renter severe housing cost burden	73.36070833
Uncrowded housing	54.63877839
Health Outcomes	—
Insured adults	13.51212627
Arthritis	4.6
Asthma ER Admissions	63.2
High Blood Pressure	6.0
Cancer (excluding skin)	16.1
Asthma	21.6
Coronary Heart Disease	3.6
Chronic Obstructive Pulmonary Disease	5.0
Diagnosed Diabetes	23.2
Life Expectancy at Birth	14.6
Cognitively Disabled	97.6
Physically Disabled	26.6
Heart Attack ER Admissions	35.8
Mental Health Not Good	30.2
Chronic Kidney Disease	7.4
Obesity	24.6

Pedestrian Injuries	72.5
Physical Health Not Good	21.6
Stroke	8.8
Health Risk Behaviors	—
Binge Drinking	69.8
Current Smoker	21.9
No Leisure Time for Physical Activity	24.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	19.9
Elderly	29.3
English Speaking	74.5
Foreign-born	34.9
Outdoor Workers	34.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	81.9
Traffic Density	49.5
Traffic Access	23.0
Other Indices	—
Hardship	81.8
Other Decision Support	—
2016 Voting	40.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	27.0

Healthy Places Index Score for Project Location (b)	20.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Client provided construction dates and off-site construction dates
Land Use	Acreage taken from Site Plan Off-SIte construction acreage and miles of construction conservatively assumed
Construction: Off-Road Equipment	Client provided construction equipment and standard 8-hour work day
Construction: Trips and VMT	"CalEEMod only assumes Vendor Trips during Building Construction. The CalEEMod default trips are based on the ratio between each phase based on the number of days." Demolition quantities will be hauled off-site to a site approximately 40-miles away
Construction: Architectural Coatings	SCAQMD Rule 1113
Operations: Vehicle Data	Trip Characteristics based on information provided in the Traffic Analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle trucks
Operations: Architectural Coatings	SCAQMD Rule 1113

Operations: Energy Use	Natural Gas will not be utilized

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APPENDIX 4.2:

EMFAC2021

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	endar \	hicle Categ	Model Year	Speed	Fuel	Population	Total VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
Riverside (SC)	2025	HHDT	Aggregate	Aggregate	Gasoline	6.232252524	99371.98783	25.79228907	25792.28907	101108506.3	99371.98783	628654469	6.22	HHDT
Riverside (SC)	2025	HHDT	Aggregate	Aggregate	Diesel	15281.49903	608590780.5	98441.69512	98441695.12		608590780.5			
Riverside (SC)	2025	HHDT	Aggregate	Aggregate	Electricity	103.9487733	3711251.372	0	0		3711251.372			
Riverside (SC)	2025	HHDT	Aggregate	Aggregate	Natural Gas	781.6601067	16253065.06	2641.018889	2641018.889		16253065.06			
Riverside (SC)	2025	LDA	Aggregate	Aggregate	Gasoline	469318.5342	7069696742	233640.8392	233640839.2	237972453.1	7069696742	7731851082	32.49	LDA
Riverside (SC)	2025	LDA	Aggregate	Aggregate	Diesel	1383.809245	17348619.14	401.5501025	401550.1025		17348619.14			
Riverside (SC)	2025	LDA	Aggregate	Aggregate	Electricity	23756.17576	400228725.7	0	0		400228725.7			
Riverside (SC)	2025	LDA	Aggregate	Aggregate	Plug-in Hybric	14087.23202	244576995.3	3930.063858	3930063.858		244576995.3			
Riverside (SC)	2025	LDT1	Aggregate	Aggregate	Gasoline	39844.42885	520364522.5	20792.5115	20792511.5	20818193.33	520364522.5	523372421.3	25.14	LDT1
Riverside (SC)	2025	LDT1	Aggregate	Aggregate	Diesel	16.26032827	103465.9915	4.209768622	4209.768622		103465.9915			
Riverside (SC)	2025	LDT1	Aggregate	Aggregate	Electricity	84.57619148	1419047.948	0	0		1419047.948			
Riverside (SC)	2025	LDT1	Aggregate	Aggregate	Plug-in Hybric	76.19034646	1485384.837	21.47206695	21472.06695		1485384.837			
Riverside (SC)	2025	LDT2	Aggregate	Aggregate	Gasoline	201900.7772	3113968961	124925.7475	124925747.5	125794940.4	3113968961	3181443320	25.29	LDT2
Riverside (SC)	2025	LDT2	Aggregate	Aggregate	Diesel	648.0824816	10590241.49	314.4122046	314412.2046		10590241.49			
Riverside (SC)	2025	LDT2	Aggregate	Aggregate	Electricity	1658.408696	20347292.45	0	0		20347292.45			
Riverside (SC)	2025	LDT2	Aggregate	Aggregate	Plug-in Hybric	1963.286623	36536825.27	554.7806116	554780.6116		36536825.27			
Riverside (SC)	2025	LHDT1	Aggregate	Aggregate	Gasoline	17598.36242	213353834.7	15312.53647	15312536.47	24003042.2	213353834.7	396504079	16.52	LHDT1
Riverside (SC)	2025	LHDT1	Aggregate	Aggregate	Diesel	15075.59282	179795007.6	8690.505724	8690505.724		179795007.6			
Riverside (SC)	2025	LHDT1	Aggregate	Aggregate	Electricity	149.6982853	3355236.777	0	0		3355236.777			
Riverside (SC)	2025	LHDT2	Aggregate	Aggregate	Gasoline	2462.303572	28909710.9	2332.556643	2332556.643	7083262.981	28909710.9	111569142.9	15.75	LHDT2
Riverside (SC)	2025	LHDT2	Aggregate	Aggregate	Diesel	6820.445818	81845755.43	4750.706338	4750706.338		81845755.43			
Riverside (SC)	2025	LHDT2	Aggregate	Aggregate	Electricity	38.18158868	813676.5443	0	0		813676.5443			
Riverside (SC)	2025	MCY	Aggregate	Aggregate	Gasoline	24005.46384	48076778.33	1147.719718	1147719.718	1147719.718	48076778.33	48076778.33	41.89	MCY
Riverside (SC)	2025	MDV	Aggregate	Aggregate	Gasoline	157992.5704	2237557559	112252.3556	112252355.6	114050749.8	2237557559	2317416092	20.32	MDV
Riverside (SC)	2025	MDV	Aggregate	Aggregate	Diesel	2427.253752	34535565.58	1435.800067	1435800.067		34535565.58			
Riverside (SC)	2025	MDV	Aggregate	Aggregate	Electricity	1830.142844	22404262.33	0	0		22404262.33			
Riverside (SC)	2025	MDV	Aggregate	Aggregate	Plug-in Hybric	1324.504282	22918705.54	362.5940561	362594.0561		22918705.54			
Riverside (SC)	2025	MH	Aggregate	Aggregate	Gasoline	4508.467531	12686060.51	2596.110402	2596110.402	3133401.858	12686060.51	18251559.38	5.82	MH
Riverside (SC)	2025	MH	Aggregate	Aggregate	Diesel	2015.081247	5565498.876	537.2914562	537291.4562		5565498.876			
Riverside (SC)	2025	MHDT	Aggregate	Aggregate	Gasoline	1219.56756	16258107.41	3079.691557	3079691.557	23180482.67	16258107.41	198913577.3	8.58	MHDT
Riverside (SC)	2025	MHDT	Aggregate	Aggregate	Diesel	13275.74248	178264039.8	19822.20637	19822206.37		178264039.8			
Riverside (SC)	2025	MHDT	Aggregate	Aggregate	Electricity	118.7135177	1927831.815	0	0		1927831.815			
Riverside (SC)	2025	MHDT	Aggregate	Aggregate	Natural Gas	169.7860028	2463598.288	278.5847433	278584.7433		2463598.288			
Riverside (SC)	2025	OBUS	Aggregate	Aggregate	Gasoline	362.5102847	3973469.472	767.779865	767779.865	1399319.855	3973469.472	9098903.331	6.50	OBUS
Riverside (SC)	2025	OBUS	Aggregate	Aggregate	Diesel	224.9321911	4433634.446	566.704758	566704.758		4433634.446			
Riverside (SC)	2025	OBUS	Aggregate	Aggregate	Electricity	2.021694394	43903.58221	0	0		43903.58221			
Riverside (SC)	2025	OBUS	Aggregate	Aggregate	Natural Gas	36.9521167	647895.8309	64.83523184	64835.23184		647895.8309			
Riverside (SC)	2025	SBUS	Aggregate	Aggregate	Gasoline	426.2067312	5513087.576	628.8352147	628835.2147	1937977.332	5513087.576	12437964.83	6.42	SBUS
Riverside (SC)	2025	SBUS	Aggregate	Aggregate	Diesel	483.8964136	3247482.464	442.2329792	442232.9792		3247482.464			
Riverside (SC)	2025	SBUS	Aggregate	Aggregate	Electricity	5.22909553	46812.91987	0	0		46812.91987			
Riverside (SC)	2025	SBUS	Aggregate	Aggregate	Natural Gas	457.8096259	3630581.873	866.9091376	866909.1376		3630581.873			
Riverside (SC)	2025	UBUS	Aggregate	Aggregate	Gasoline	146.4959788	6064495.771	1075.353622	1075353.622	3585374.021	6064495.771	16262363.44	4.54	UBUS
Riverside (SC)	2025	UBUS	Aggregate	Aggregate	Diesel	0.3117338	9845.875493	0.874762616	874.7626165		9845.875493			
Riverside (SC)	2025	UBUS	Aggregate	Aggregate	Electricity	0.20926462	11038.80379	0	0		11038.80379			
Riverside (SC)	2025	UBUS	Aggregate	Aggregate	Natural Gas	252.5418031	10176982.99	2509.145637	2509145.637		10176982.99			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2026
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
Riverside (SC)	2026	HHDT	Aggregate	Aggregate	Gasoline	5.301713201	88229.69411	22.389626	22389.626	101770226.7	88229.69411	643794571.5	6.33	HHDT
Riverside (SC)	2026	HHDT	Aggregate	Aggregate	Diesel	15687.78827	620397368.1	99038.52843	99038528.43		620397368.1			
Riverside (SC)	2026	HHDT	Aggregate	Aggregate	Electricity	181.0556624	6506746.829	0	0		6506746.829			
Riverside (SC)	2026	HHDT	Aggregate	Aggregate	Natural Gas	822.9858358	16802226.89	2709.308594	2709308.594		16802226.89			
Riverside (SC)	2026	LDA	Aggregate	Aggregate	Gasoline	470220.2179	7057630632	228291.9855	228291985.5	232727251.3	7057630632	7780982874	33.43	LDA
Riverside (SC)	2026	LDA	Aggregate	Aggregate	Diesel	1278.903087	15842914.66	362.4298198	362429.8198		15842914.66			
Riverside (SC)	2026	LDA	Aggregate	Aggregate	Electricity	27110.24505	449137199	0	0		449137199			
Riverside (SC)	2026	LDA	Aggregate	Aggregate	Plug-in Hybric	15111.22646	258372127.8	4072.836004	4072836.004		258372127.8			
Riverside (SC)	2026	LDT1	Aggregate	Aggregate	Gasoline	39097.73904	512092396.9	20046.41678	20046416.78	20077600.28	512092396.9	516039672.8	25.70	LDT1
Riverside (SC)	2026	LDT1	Aggregate	Aggregate	Diesel	13.62192751	85491.27079	3.456180277	3456.180277		85491.27079			
Riverside (SC)	2026	LDT1	Aggregate	Aggregate	Electricity	113.2552136	1912051.079	0	0		1912051.079			
Riverside (SC)	2026	LDT1	Aggregate	Aggregate	Plug-in Hybric	101.686721	1949733.5	27.72732249	27727.32249		1949733.5			
Riverside (SC)	2026	LDT2	Aggregate	Aggregate	Gasoline	207104.2919	3188588605	124658.5	124658500	125602870.5	3188588605	3266755068	26.01	LDT2
Riverside (SC)	2026	LDT2	Aggregate	Aggregate	Diesel	682.5626595	11042133.81	320.5825209	320582.5209		11042133.81			
Riverside (SC)	2026	LDT2	Aggregate	Aggregate	Electricity	2094.273367	25313331.28	0	0		25313331.28			
Riverside (SC)	2026	LDT2	Aggregate	Aggregate	Plug-in Hybric	2291.195555	41810997.9	623.7879079	623787.9079		41810997.9			
Riverside (SC)	2026	LHDT1	Aggregate	Aggregate	Gasoline	17398.34216	211980566.6	14856.36322	14856363.22	23340640.16	211980566.6	394313795.7	16.89	LHDT1
Riverside (SC)	2026	LHDT1	Aggregate	Aggregate	Diesel	14868.32038	176178204.8	8484.276943	8484276.943		176178204.8			
Riverside (SC)	2026	LHDT1	Aggregate	Aggregate	Electricity	286.9935654	6155024.303	0	0		6155024.303			
Riverside (SC)	2026	LHDT2	Aggregate	Aggregate	Gasoline	2430.034218	28474363.93	2254.550563	2254550.563	6901025.208	28474363.93	110466846.5	16.01	LHDT2
Riverside (SC)	2026	LHDT2	Aggregate	Aggregate	Diesel	6777.719033	80500413.14	4646.474645	4646474.645		80500413.14			
Riverside (SC)	2026	LHDT2	Aggregate	Aggregate	Electricity	73.06243174	1492069.403	0	0		1492069.403			
Riverside (SC)	2026	MCY	Aggregate	Aggregate	Gasoline	23937.33086	47588474.8	1131.168291	1131168.291	1131168.291	47588474.8	47588474.8	42.07	MCY
Riverside (SC)	2026	MDV	Aggregate	Aggregate	Gasoline	157654.7501	2229684065	109204.4529	109204452.9	110985154.2	2229684065	2317334670	20.88	MDV
Riverside (SC)	2026	MDV	Aggregate	Aggregate	Diesel	2395.180805	33615739.37	1373.708941	1373708.941		33615739.37			
Riverside (SC)	2026	MDV	Aggregate	Aggregate	Electricity	2298.450518	27709764.61	0	0		27709764.61			
Riverside (SC)	2026	MDV	Aggregate	Aggregate	Plug-in Hybric	1539.714974	26325101.32	406.9923832	406992.3832		26325101.32			
Riverside (SC)	2026	MH	Aggregate	Aggregate	Gasoline	4250.734566	11874026.02	2428.259492	2428259.492	2950041.448	11874026.02	17276463.67	5.86	MH
Riverside (SC)	2026	MH	Aggregate	Aggregate	Diesel	1981.725027	5402437.651	521.7819562	521781.9562		5402437.651			
Riverside (SC)	2026	MHDT	Aggregate	Aggregate	Gasoline	1204.155669	16197892.54	3029.327139	3029327.139	23248097.76	16197892.54	202387910.7	8.71	MHDT
Riverside (SC)	2026	MHDT	Aggregate	Aggregate	Diesel	13571.64646	180090692.7	19927.8634	19927863.4		180090692.7			
Riverside (SC)	2026	MHDT	Aggregate	Aggregate	Electricity	219.063018	3525537.472	0	0		3525537.472			
Riverside (SC)	2026	MHDT	Aggregate	Aggregate	Natural Gas	180.8134913	2573788.019	290.9072294	290907.2294		2573788.019			
Riverside (SC)	2026	OBUS	Aggregate	Aggregate	Gasoline	350.9276772	3792461.932	724.7861649	724786.1649	1355315.638	3792461.932	8991247.491	6.63	OBUS
Riverside (SC)	2026	OBUS	Aggregate	Aggregate	Diesel	230.0918445	4448228.077	563.6496968	563649.6968		4448228.077			
Riverside (SC)	2026	OBUS	Aggregate	Aggregate	Electricity	3.398598414	72614.76405	0	0		72614.76405			
Riverside (SC)	2026	OBUS	Aggregate	Aggregate	Natural Gas	39.09901647	677942.718	66.87977673	66879.77673		677942.718			
Riverside (SC)	2026	SBUS	Aggregate	Aggregate	Gasoline	428.6165302	5545212.153	631.2466895	631246.6895	1939473.005	5545212.153	12478375.54	6.43	SBUS
Riverside (SC)	2026	SBUS	Aggregate	Aggregate	Diesel	474.8674611	3148064.322	427.9079442	427907.9442		3148064.322			
Riverside (SC)	2026	SBUS	Aggregate	Aggregate	Electricity	8.960082283	80288.33983	0	0		80288.33983			
Riverside (SC)	2026	SBUS	Aggregate	Aggregate	Natural Gas	472.4302591	3704810.727	880.318371	880318.371		3704810.727			
Riverside (SC)	2026	UBUS	Aggregate	Aggregate	Gasoline	146.7792196	6075856.23	1063.782316	1063782.316	3577136.731	6075856.23	16295121.7	4.56	UBUS
Riverside (SC)	2026	UBUS	Aggregate	Aggregate	Diesel	0.3117338	9845.875493	0.874762591	874.7625913		9845.875493			
Riverside (SC)	2026	UBUS	Aggregate	Aggregate	Electricity	0.298524289	16072.6725	0	0		16072.6725			
Riverside (SC)	2026	UBUS	Aggregate	Aggregate	Natural Gas	252.9741581	10193346.92	2512.479652	2512479.652		10193346.92			

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Appendix E: Geotechnical Investigation

GEOTECHNICAL INVESTIGATION
MENIFEE COMMERCE CENTER – PHASE III

Sherman Avenue, North of MacLaughlin Road
Menifee, California
for
Core5 Industrial Partners

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

June 3, 2022

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Core5 Industrial Partners
300 Spectrum Center Drive, Suite 880
Irvine, California 92618

Attention: Mr. Jon Kelly
Vice President Development

Project No.: **22G173-1**

Subject: **Geotechnical Investigation**
Proposed Menifee Commerce Center – Phase III
Sherman Road, North of McLaughlin Road
Menifee, California

Mr. Kelly:

In accordance with your request, we have conducted a geotechnical investigation at the subject site. We are pleased to present this report summarizing the conclusions and recommendations developed from our investigation.

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

Pablo Montes Jr.
Project Engineer

Robert G. Trazo, GE 2655
Principal Engineer

Distribution: (1) Addressee

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APPENDICES

A Plate 1: Site Location Map
Plate 2: Boring Location Plan
B Boring Logs
C Laboratory Test Results
D Grading Guide Specifications
E Seismic Design Parameters

1.0 EXECUTIVE SUMMARY

Presented below is a brief summary of the conclusions and recommendations of this investigation. Since this summary is not all inclusive, it should be read in complete context with the entire report.

Geotechnical Design Considerations

- Artificial fill soils were encountered at most of the boring locations, extending to depths of 2½ to 3± feet. The existing fill soils are considered to represent undocumented fill.
- The near-surface alluvial soils within the upper 3 to 4± feet possess a moderate potential for settlement when exposed to load increases in the range of those that will be exerted by the new foundations.
- The undocumented fill soils and the upper-portion of the alluvial soils generally possess varying strengths and unfavorable consolidation/collapse characteristics. These soils, in their present condition, are not considered suitable for support of the foundation loads of the new structure.
- Remedial grading will be necessary to remove the undocumented fill soils in their entirety and the upper portion of the alluvial soils and replace these materials as compacted structural fill soils.

Site Preparation

- Initial site preparation should include removal of all vegetation, including tree root masses and any organic topsoil.
- Remedial grading is recommended within the proposed building pad area to remove the undocumented fill soils, which extend to depths of 2½ to 3± feet at the boring locations, in their entirety. At a minimum, the building pad area should be overexcavated to a depth of at least 4 feet below existing grade and to a depth of at least 3 feet below proposed pad grade, whichever is greater. Overexcavation within the foundation areas is recommended to extend to a depth of at least 3 feet below proposed foundation bearing grade.
- After overexcavation has been completed, the subgrade soils should be evaluated by the geotechnical engineer to identify any additional soils that should be overexcavated. The resulting subgrade should then be scarified to a depth of 12 inches, moisture conditioned or air dried to 2 to 4 percent above optimum, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. The previously excavated soils may then be replaced as compacted structural fill.
- The new pavement and flatwork subgrade soils are recommended to be scarified to a depth of 12± inches, moisture conditioned and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Building Foundations

- Conventional shallow foundations, supported in newly placed compacted fill.
- 2,500 lbs/ft^2 maximum allowable soil bearing pressure.
- Reinforcement consisting of at least four (4) No. 5 rebars (2 top and 2 bottom) in strip footings. Additional reinforcement may be necessary for structural considerations.

Building Floor Slab

- Conventional Slab-on-Grade: minimum 6 inches thick.
- Modulus of Subgrade Reaction: k = 100 psi/in.
- Reinforcement is not expected to be necessary for geotechnical considerations. The actual thickness and reinforcement of the floor slab should be determined by the structural engineer.

Pavement Design Recommendations

ASPHALT PAVEMENTS (R=30)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	6	8	10	11	13
Compacted Subgrade	12	12	12	12	12

PORTLAND CEMENT CONCRETE PAVEMENTS (R=30)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 5.0 to 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	5½	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

2.0 SCOPE OF SERVICES

The scope of services performed for this project was in accordance with our Proposal No. 22P198, dated April 19, 2022. The scope of services included a visual site reconnaissance, subsurface exploration, field and laboratory testing, and geotechnical engineering analysis to provide criteria for preparing the design of the building foundations, building floor slab, and parking lot pavements along with site preparation recommendations and construction considerations for the proposed development. The evaluation of the environmental aspects of this site was beyond the scope of services for this geotechnical investigation.

3.0 SITE AND PROJECT DESCRIPTION

3.1 Site Conditions

The subject site is located on the west side of Sherman Road, 950± feet north of McLaughlin Road in Menifee, California. The site is bounded to the north by an industrial building, to the west by single-family residences and vacant lots, to the south by a vacant lot, and to the east by Sherman Road. The general location of the site is illustrated on the Site Location Map, enclosed as Plate 1 in Appendix A of this report.

The subject site consists of a rectangular-shaped parcel, which totals 11.3± acres in size. The site is developed with an aggregate (sand and gravel) supply company, which includes an office building, 1,200± ft² in size, located in the northeastern corner of the site. The building is a single-story structure of wood-frame construction, presumably supported on conventional shallow foundations, with a concrete slab-on-grade floor. Several soil and/or aggregate stockpiles are located in the south and southwest regions of the site. A concrete loading dock, approximately 4-feet in height, is located in the west-central region of the site. Masonry block wall enclosures are located along the northwestern boundary of the site. Ground surface cover throughout the site generally consists of crushed aggregate base (CAB).

Detailed topographic information was not available at the time of this report. Based on elevations obtained from Google Earth and visual observations made at the time of the subsurface investigation, the overall site slopes downward to the west at a gradient of less than 1± percent.

3.2 Proposed Development

Based on the conceptual site plan provided to our office by the client, the site will be developed with one (1) industrial building. The new building will be located in the west-central area of the site and will be 261,420± ft² in size. The building will be constructed with dock-high doors along a portion of the east building wall. The building will be surrounded by asphaltic concrete (AC) pavements in the parking and drive lanes, Portland cement concrete (PCC) pavements in the loading dock areas, and concrete flatwork with limited areas of landscape planters throughout.

Detailed structural information has not been provided. It is assumed the building will be of tilt-up concrete construction, typically supported on conventional shallow foundations with a concrete slab-on-grade floor. Based on the assumed construction, maximum column and wall loads are expected to be on the order of 100 kips and 4 to 7 kips per linear foot, respectively.

No significant amounts of below grade construction, such as crawl spaces or new basements, are expected to be included in the proposed development. Based on the assumed topography, cuts and fills of up to 4± feet are expected to be necessary to achieve the proposed site grades.

4.0 SUBSURFACE EXPLORATION

4.1 Scope of Exploration/Sampling Methods

The subsurface exploration for this project consisted of six (6) borings advanced to depths of 15 to 25± feet below the existing site grades. All of the borings were logged during drilling by a member of our staff.

The borings were advanced with hollow-stem augers, by a limited-access, track-mounted drilling rig. Representative bulk and relatively undisturbed soil samples were taken during drilling. Relatively undisturbed soil samples were taken with a split barrel "California Sampler" containing a series of one inch long, 2.416± inch diameter brass rings. This sampling method is described in ASTM Test Method D-3550. In-situ samples were also taken using a 1.4± inch inside diameter split spoon sampler, in general accordance with ASTM D-1586. Both of these samplers are driven into the ground with successive blows of a 140-pound weight falling 30 inches. The blow counts obtained during driving are recorded for further analysis. Bulk samples were collected in plastic bags to retain their original moisture content. The relatively undisturbed ring samples were placed in molded plastic sleeves that were then sealed and transported to our laboratory.

The approximate locations of the borings are indicated on the Boring Location Plan, included as Plate 2 in Appendix A of this report. The Boring Logs, which illustrate the conditions encountered at the boring locations, as well as the results of some of the laboratory testing, are included in Appendix B.

4.2 Geotechnical Conditions

Artificial Fill

Artificial fill soils were encountered at the ground surface at Boring Nos. B-2, B-3, B-5 and B-6, extending to depths of 2½ to 3± feet below ground surface. The fill soils generally consist of medium dense to dense clayey fine sand and silty fine sands with varying medium to coarse sand and gravel content, and stiff clayey silts. The fill soils possess a disturbed and mottled appearance, resulting in their classification as artificial fill.

Older Alluvium

Older alluvium was encountered beneath the artificial fill soils or at the ground surface at all of the boring locations, extending to at least the maximum depth explored of 25± feet below ground surface. The alluvial soils generally consist of medium dense to very dense silty fine to coarse sands, clayey fine to medium sands and fine sandy silts, and very stiff to hard fine sandy clays, silty clays and clayey silts with varying fine to coarse sand content.

Groundwater

Free water was not encountered during the drilling of any of the borings. Based on the lack of any water within the borings, and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth in excess of 25± feet at the time of the subsurface exploration.

Recent water level data was obtained from the California Department of Water Resources website, http://www.water.ca.gov/waterdatalibrary/. One monitoring well on record is located 600± feet northwest of the site. Water level readings within this monitoring well indicates a high groundwater level of 66± feet below ground surface in March 2022.

5.0 LABORATORY TESTING

The soil samples recovered from the subsurface exploration were returned to our laboratory for further testing to determine selected physical and engineering properties of the soils. The tests are briefly discussed below. It should be noted that the test results are specific to the actual samples tested, and variations could be expected at other locations and depths.

Classification

All recovered soil samples were classified using the Unified Soil Classification System (USCS), in accordance with ASTM D-2488. Field identifications were then supplemented with additional visual classifications and/or by laboratory testing. The USCS classifications are shown on the Boring Logs and are periodically referenced throughout this report.

Density and Moisture Content

The density has been determined for selected relatively undisturbed ring samples. These densities were determined in general accordance with the method presented in ASTM D-2937. The results are recorded as dry unit weight in pounds per cubic foot. The moisture contents are determined in accordance with ASTM D-2216, and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

Consolidation

Selected soil samples have been tested to determine their consolidation and collapse potential, in accordance with ASTM D-2435. The testing apparatus is designed to accept either natural or remolded samples in a one-inch high ring, approximately 2.416 inches in diameter. Each sample is then loaded incrementally in a geometric progression and the resulting deflection is recorded at selected time intervals. Porous stones are in contact with the top and bottom of the sample to permit the addition or release of pore water. The samples are typically inundated with water at an intermediate load to determine their potential for collapse or heave. The results of the consolidation testing are plotted on Plates C-1 through C-4 in Appendix C of this report.

Maximum Dry Density and Optimum Moisture Content

A representative bulk sample has been tested for its maximum dry density and optimum moisture content. The results have been obtained using the Modified Proctor procedure, per ASTM D-1557, and are presented on Plate C-5 in Appendix C of this report. These tests are generally used to with compare the dry densities of undisturbed field samples, and for later compaction testing. Additional testing of other soil types or soil mixes may be necessary at a later date.

Expansion Index

The expansion potential of the on-site soils was evaluated in general accordance with ASTM D-4829. The testing apparatus is designed to accept a 4-inch diameter, 1-in high, remolded sample. The sample is initially remolded to 50± 1 percent saturation and then loaded with a surcharge equivalent to 144 pounds per square foot. The sample is then inundated with water, and allowed

to swell against the surcharge. The resultant swell or consolidation is recorded after a 24-hour period. The results of the EI testing are as follows:

Sample Identification	Expansion Index	Expansive Potential
B-4 @ 0 to 5 feet	36	Low

Soluble Sulfates

Two (2) representative samples of the near-surface soils have been submitted to a subcontracted analytical laboratory for evaluation of soluble sulfate content. Soluble sulfates are naturally present in soils, and if the concentration is high enough, can result in degradation of concrete which comes into contact with these soils. The results of the soluble sulfate testing is presented below, and are discussed further in a subsequent section of this report.

Sample Identification	Soluble Sulfates (%)	Severity
B-4 @ 0 to 5 feet	0.034	Not Applicable (S0)
B-5 @ 0 to 5 feet	0.027	Not Applicable (S0)

Corrosivity Testing

Two representative bulk samples of the near-surface soils were submitted to a subcontracted corrosion engineering laboratory to determine if the near-surface soils possess corrosive characteristics with respect to common construction materials. The corrosivity testing included an evaluation of the electrical resistivity, pH, and chloride concentrations of the soils, as well as other tests. The results of some of these tests are presented below.

Sample Identification	Saturated Resistivity (ohm-cm)	pH	Chlorides (mg/kg)	Nitrates (mg/kg)
B-4 @ 0 to 5 feet	1,005	7.8	142.4	220.6
B-5 @ 0 to 5 feet	1,072	8.6	96.3	160.3

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our review, field exploration, laboratory testing and geotechnical analysis, the proposed development is considered feasible from a geotechnical standpoint. The recommendations contained in this report should be taken into the design, construction, and grading considerations.

The recommendations are contingent upon all grading and foundation construction activities being monitored by the geotechnical engineer of record. The recommendations are provided with the assumption that an adequate program of client consultation, construction monitoring, and testing will be performed during the final design and construction phases to verify compliance with these recommendations. Maintaining Southern California Geotechnical, Inc., (SCG) as the geotechnical consultant from the beginning to the end of the project will provide continuity of services. The geotechnical engineering firm providing testing and observation services shall assume the responsibility of Geotechnical Engineer of Record.

The Grading Guide Specifications, included as Appendix D, should be considered part of this report, and should be incorporated into the project specifications. The contractor and/or owner of the development should bring to the attention of the geotechnical engineer any conditions that differ from those stated in this report, or which may be detrimental for the development.

6.1 Seismic Design Considerations

The subject site is located in an area which is subject to strong ground motions due to earthquakes. The performance of a site-specific seismic hazards analysis was beyond the scope of this investigation. However, numerous faults capable of producing significant ground motions are located near the subject site. Due to economic considerations, it is not generally considered reasonable to design a structure that is not susceptible to earthquake damage. Therefore, significant damage to structures may be unavoidable during large earthquakes. The proposed structures should, however, be designed to resist structural collapse and thereby provide reasonable protection from serious injury, catastrophic property damage and loss of life.

Faulting and Seismicity

Research of available maps indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Furthermore, SCG did not identify any evidence of faulting during the geotechnical investigation. Therefore, the possibility of significant fault rupture on the site is considered to be low.

The potential for other geologic hazards such as seismically induced settlement, lateral spreading, tsunamis, inundation, seiches, flooding, and subsidence affecting the site is considered low.

Seismic Design Parameters

The 2019 California Building Code (CBC) provides procedures for earthquake resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of

the structure including the structural system and height. The seismic design parameters presented below are based on the soil profile and the proximity of known faults with respect to the subject site.

Based on standards in place at the time of this report, the proposed development is expected to be designed in accordance with the requirements of the 2019 edition of the California Building Code (CBC), which was adopted on January 1, 2020.

The 2019 CBC Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool, a web-based software application available at the website www.seismicmaps.org. This software application calculates seismic design parameters in accordance with several building code reference documents, including ASCE 7-16, upon which the 2019 CBC is based. The application utilizes a database of risk-targeted maximum considered earthquake (MCE_R) site accelerations at 0.01-degree intervals for each of the code documents. The tables below were created using data obtained from the application. The output generated from this program is included as Plate E-1 in Appendix E of this report.

The 2019 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class D sites with a mapped S_1 value greater than 0.2. However, Section 11.4.8 of ASCE 7-16 also indicates an exception to the requirement for a site-specific ground motion hazard analysis for certain structures on Site Class D sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of Section C11 of ASCE 7-16) indicates that "In general, this exception effectively limits the requirements for site-specific hazard analysis to very tall and or flexible structures at Site Class D sites." **Based on our understanding of the proposed development, the seismic design parameters presented below were calculated assuming that the exception in Section 11.4.8 applies to the proposed structure at this site. However, the structural engineer should verify that this exception is applicable to the proposed structure.** Based on the exception, the spectral response accelerations presented below were calculated using the site coefficients (F_a and F_v) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of the 2019 CBC.

2019 CBC SEISMIC DESIGN PARAMETERS

Parameter		Value
Mapped Spectral Acceleration at 0.2 sec Period	S_S	1.417
Mapped Spectral Acceleration at 1.0 sec Period	S_1	0.526
Site Class	---	D
Site Modified Spectral Acceleration at 0.2 sec Period	S_{MS}	1.417
Site Modified Spectral Acceleration at 1.0 sec Period	S_{M1}	0.933
Design Spectral Acceleration at 0.2 sec Period	S_{DS}	0.945
Design Spectral Acceleration at 1.0 sec Period	S_{D1}	0.622

It should be noted that the site coefficient F_v and the parameters S_{M1} and S_{D1} were not included in the SEAOC/OSHPD Seismic Design Maps Tool output for the 2019 CBC. We calculated these parameters-based on Table 1613.2.3(2) in Section 16.4.4 of the 2019 CBC using the value of S_1

obtained from the Seismic Design Maps Tool, assuming that a site-specific ground motion hazards analysis is not required for the proposed buildings at this site.

Liquefaction

Liquefaction is the loss of strength in generally cohesionless, saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The primary factors which influence the potential for liquefaction include groundwater table elevation, soil type and plasticity characteristics, relative density of the soil, initial confining pressure, and intensity and duration of ground shaking. The depth within which the occurrence of liquefaction may impact surface improvements is generally identified as the upper 50 feet below the existing ground surface. Liquefaction potential is greater in saturated, loose, poorly graded fine sands with a mean (d_{50}) grain size in the range of 0.075 to 0.2 mm (Seed and Idriss, 1971). Non-sensitive clayey (cohesive) soils which possess a plasticity index of at least 18 (Bray and Sancio, 2006) are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table.

The Riverside County GIS website indicates that the subject site is located within a zone of low liquefaction susceptibility. In addition, the subsurface conditions encountered at the boring locations are not considered to be conducive to liquefaction. These conditions consist of moderate to high strength older native alluvial soils and no evidence of a long-term groundwater table within 25 feet of the ground surface. In addition, research of available well data indicates that the groundwater depths in the area of the site are more than 66 feet below grade. Based on these considerations, liquefaction is not considered to be a design concern for this project.

6.2 Geotechnical Design Considerations

General

Most of the borings encountered artificial fill materials, extending to depths of 2½ to 3± feet. Based on their strength characteristics and a lack of documentation regarding the placement and compaction of the existing fill materials, these soils are considered to consist of undocumented fill. In addition, the near-surface alluvial soils within the upper 3 to 4± feet possess a potential for moderate settlement when exposed to load increases in the range of those that will be exerted by the new foundations. The undocumented fill soils and the near-surface native alluvium are not considered to be suitable for the support of the foundation and floor slab loads of the proposed structure. Based on these conditions, remedial grading is considered warranted within the proposed building area to completely remove the existing artificial fill soils and the upper portion of the near-surface native alluvium and replace these soils as compacted structural fill.

Settlement

The recommended remedial grading will remove all of the existing fill soils and a portion of the near-surface native alluvium, and replace these soils as compacted structural fill. The native soils that will remain in place below the recommended depth of overexcavation possess favorable consolidation and collapse characteristics and will not be subject to significant load increases from the foundations of the new structure. Provided that the recommended remedial grading is

completed, the post-construction settlement of the proposed structure is expected to be within tolerable limits.

Expansion

Laboratory testing performed on a representative sample of the near-surface soils indicates that these materials possess a low expansion potential (EI = 36). Based on the presence of potentially expansive soils at this site, care should be given to proper moisture conditioning the building pad subgrade soils to a moisture content of 2 to 4 percent above the ASTM D-1557 optimum during site grading. It is recommended that additional expansion index testing be conducted at the completion of rough grading to verify the expansion potential of the as-graded building pad.

Soluble Sulfates

The results of the soluble sulfate testing indicate that the selected samples of the on-site soils contain concentrations of soluble sulfates that correspond to Class S0 with respect to the American Concrete Institute (ACI) Publication 318 Building Code Requirements for Structural Concrete and Commentary. Therefore, specialized concrete mix designs are not considered to be necessary, with regard to sulfate protection purposes. It is, however, recommended that additional soluble sulfate testing be conducted at the completion of rough grading to confirm the soluble sulfate concentrations of the soils which are present at pad grade within the building area.

Corrosion Potential

The results of laboratory testing indicate that representative samples of the on-site soils possess saturated minimum resistivity values ranging from 1,005 to 1,072 ohm-cm, and pH values of 7.8 to 8.6. These test results have been evaluated in accordance with guidelines published by the Ductile Iron Pipe Research Association (DIPRA). The DIPRA guidelines consist of a point system by which characteristics of the soils are used to quantify the corrosivity characteristics of the site. Sulfides, and redox potential are factors that are also used in the evaluation procedure. We have evaluated the corrosivity characteristics of the on-site soils using resistivity, pH, and moisture content. **Based on these factors, and utilizing the DIPRA procedure, the on-site soils are considered to be highly corrosive to ductile iron pipe. Based on these test results, and since SCG does not practice in the area of corrosion engineering, the client may also wish to contact a corrosion engineer to provide a more thorough evaluation.**

Chlorides

Low to moderate (96.3 to 142.4 mg/kg) concentration of chlorides were detected in the samples submitted for corrosivity testing. In general, soils possessing chloride concentrations in excess of 500 parts per million (ppm) are considered to be corrosive with respect to steel reinforcement within reinforced concrete. Based on the lack of significant chlorides in the tested sample, the site is considered to have a C1 chloride exposure in accordance with the American Concrete Institute (ACI) Publication 318 Building Code Requirements for Structural Concrete and Commentary. Therefore, a specialized concrete mix design for reinforced concrete for protection against chloride exposure is not considered warranted.

Nitrates

Nitrates present in soil can be corrosive to copper tubing at concentrations greater than 50 mg/kg. The tested samples possess nitrate concentrations ranging from 160.3 to 220.6 mg/kg. Based on this test result, the on-site soils are considered to be corrosive to copper pipe. **Since SCG does not practice in the area of corrosion engineering, we recommend that the client contact a corrosion engineer to provide recommendations for the protection of copper tubing/pipe in contact with the on-site soils.**

Shrinkage/Subsidence

Based on the results of the laboratory testing, removal and recompaction of the near-surface artificial fill soils and native alluvium will result in an average shrinkage of 0 to 6 percent. The potential shrinkage estimate is based on dry density testing performed on small-diameter samples taken at the boring locations. If a more accurate and precise shrinkage estimate is desired, SCG can perform a shrinkage study involving several excavated test-pits where in-place densities are determined using in-situ testing methods instead of laboratory density testing on small-diameter samples. Please contact SCG for details and a cost estimate regarding a shrinkage study, if desired.

Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement and machinery working. The subsidence is estimated to be 0.1 feet. This estimate may be used for grading in areas that are underlain by native alluvial soils.

These estimates are based on previous experience and the subsurface conditions encountered at the boring locations. The actual amount of subsidence is expected to be variable and will be dependent on the type of machinery used, repetitions of use, and dynamic effects, all of which are difficult to assess precisely.

Grading and Foundation Plan Review

It is recommended that we be provided with copies of the finalized grading and foundation plans, when they become available, for review with regard to the conclusions, recommendations, and assumptions contained within this report.

6.3 Site Grading Recommendations

The grading recommendations presented below are based on the subsurface conditions encountered at the boring locations and our understanding of the proposed development. We recommend that all grading activities be completed in accordance with the Grading Guide Specifications included as Appendix D of this report, unless superseded by site-specific recommendations presented below.

Site Stripping and Demolition

Demolition of the existing structure and pavements should include all foundations, floor slabs, pavements, septic systems, utilities and any other subsurface improvements that will not remain in place with the new development. Debris resultant from demolition should be disposed of off-

site. Alternatively, concrete and asphalt debris may be pulverized to a maximum 2-inch particle size, well-mixed with the sandy on-site soils, and incorporated into new structural fills or it may be processed to create crushed miscellaneous base (CMB).

Initial site preparation should also include stripping of any surficial vegetation and organic soils. Based on conditions encountered at the time of the subsurface exploration, minor striping and removal of some trees in the landscaped areas along the property lines and within landscaped planters will be required. Any vegetation, organic topsoil, and all tree root masses should be removed during site stripping. These materials should be disposed of off-site. The actual extent of site stripping should be determined in the field by the geotechnical engineer, based on the organic content and stability of the materials encountered. Any soils disturbed during demolition should be removed and replaced with compacted fill soils.

The aggregate base material which currently covers the overall all site can be re-utilized for new site fills.

Treatment of Existing Soils: Building Pad

Remedial grading should be performed within the proposed building pad area in order to remove all of the existing undocumented fill soils and a portion of the near-surface native alluvium. The undocumented fill soils extend to depths of 2½ to 3± feet at the boring locations within the building area. The soils within the proposed building pad area should also be overexcavated to a depth of 4 feet below existing grade and to a depth of at least 3 feet below proposed building pad subgrade elevation. The proposed foundation influence zones within the industrial building should be overexcavated to a depth of at least 3 feet below proposed foundation bearing grade.

The overexcavation areas should extend at least 5 feet beyond the building and foundation perimeters, and to an extent equal to the depth of fill below the new foundations. If the proposed structure incorporates any exterior columns (such as for a canopy or overhang) the area of overexcavation should also encompass these areas.

Following completion of the overexcavation, the subgrade soils within the overexcavation areas should be evaluated by the geotechnical engineer to verify their suitability to serve as the structural fill subgrade, as well as to support the foundation loads of the new structure. This evaluation should include proofrolling and probing to identify any soft, loose, or otherwise unstable soils that must be removed. Some localized areas of deeper excavation may be required if additional fill or loose, porous, or low-density native soils are encountered at the base of the overexcavation. Deeper undocumented fill soils may also exist at locations not explored by our borings.

After a suitable overexcavation subgrade has been achieved, the exposed soils should be scarified to a depth of at least 12 inches, and moisture conditioned to at 2 to 4 percent above optimum moisture content, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. The previously excavated soils may then be replaced as compacted structural fill.

Treatment of Existing Soils: Retaining Walls and Site Walls

The existing soils within the areas of proposed retaining and non-retaining site walls should be overexcavated to a depth of at least 2 feet below foundation bearing grade and replaced as

compacted structural fill. Any existing fill soils in these areas should be removed. Subgrades for erection pads for concrete tilt-up walls are considered to be a part of the foundation system and should also be overexcavated. Additional overexcavation may be required if porous or collapsible alluvium is encountered, as discussed above. The overexcavation subgrade soils should be evaluated by the geotechnical engineer prior to scarifying, moisture conditioning and recompacting the upper 12 inches of exposed subgrade soils. The previously excavated soils may then be replaced as compacted structural fill.

If the full lateral extent of overexcavation is not achievable for the proposed walls, the foundations should be redesigned using a lower bearing pressure. The geotechnical engineer of record should be contacted for recommendations pertaining to this type of condition.

Treatment of Existing Soils: Parking and Drive Areas

Based on economic considerations, overexcavation of the undocumented fill soils and near-surface alluvial soils in the new parking and drive areas is not considered warranted, with the exception of areas where lower strength, or unstable soils are identified by the geotechnical engineer during grading.

Subgrade preparation in the new parking and drive areas should initially consist of removal of all soils disturbed during stripping. The geotechnical engineer should then evaluate the subgrade to identify any areas of additional unsuitable soils. The subgrade soils should then be scarified to a depth of 12± inches, moisture conditioned to 2 to 4 percent above optimum, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. Based on the presence of artificial fill and variable strength alluvial soils throughout the site, it is expected that some isolated areas of additional overexcavation may be required to remove zones of lower strength, unsuitable soils.

The grading recommendations presented above for the proposed parking and drive areas assume that the owner and/or developer can tolerate minor amounts of settlement within the proposed parking areas. The grading recommendations presented above do not completely mitigate the extent of existing undocumented fill soils in the parking areas. As such, settlement and associated pavement distress could occur. Typically, repair of such distressed areas involves significantly lower costs than completely mitigating these soils at the time of construction. If the owner cannot tolerate the risk of such settlements, the parking and drive areas should be overexcavated to a depth of 2 feet below proposed pavement subgrade elevation, with the resulting soils replaced as compacted structural fill.

Treatment of Existing Soils: Flatwork Areas

Subgrade preparation in the new flatwork areas should initially consist of removal of soils disturbed during stripping operations. The geotechnical engineer should then evaluate the subgrade to identify areas of additional unsuitable soils. The subgrade soils should then be scarified to a depth of 12± inches, moisture conditioned to 2 to 4 percent above optimum, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. Based on the presence of variable strength alluvial soils throughout the site, it is expected that some isolated areas of additional overexcavation may be required to remove zones of lower strength, unsuitable soils.

Fill Placement

- Fill soils should be placed in thin (6± inches), near-horizontal lifts, moisture conditioned to 2 to 4 percent above the optimum moisture content, and compacted.
- On-site soils may be used for fill provided they are cleaned of any debris to the satisfaction of the geotechnical engineer.
- All grading and fill placement activities should be completed in accordance with the requirements of the 2019 CBC and the grading code of the city of Menifee and/or the county of Riverside.
- All fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Fill soils should be well mixed.
- Compaction tests should be performed periodically by the geotechnical engineer as random verification of compaction and moisture content. These tests are intended to aid the contractor. Since the tests are taken at discrete locations and depths, they may not be indicative of the entire fill and therefore should not relieve the contractor of his responsibility to meet the job specifications.

Imported Structural Fill

All imported structural fill should consist of very low expansive (EI < 20), well graded soils possessing at least 10 percent fines (that portion of the sample passing the No. 200 sieve). Additional specifications for structural fill are presented in the Grading Guide Specifications, included as Appendix D.

Utility Trench Backfill

In general, all utility trench backfill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. As an alternative, a clean sand (minimum Sand Equivalent of 30) may be placed within trenches and compacted in place (jetting or flooding is not recommended). Compacted trench backfill should conform to the requirements of the local grading code, and more restrictive requirements may be indicated by the city of Menifee and/or the county of Riverside. All utility trench backfills should be witnessed by the geotechnical engineer. The trench backfill soils should be compaction tested where possible; probed and visually evaluated elsewhere.

Utility trenches which parallel a footing, and extending below a 1h:1v plane projected from the outside edge of the footing should be backfilled with structural fill soils, compacted to at least 90 percent of the ASTM D-1557 standard. Pea gravel backfill should not be used for these trenches.

6.4 Construction Considerations

Excavation Considerations

The near surface soils generally consist of moderate strength silty to clayey fine sands and fine sandy silts with minor clay content. These upper materials may be subject to minor caving within shallow excavations. Where caving occurs within shallow excavations, flattened excavation slopes may be sufficient to provide excavation stability. On a preliminary basis, the inclination of

temporary slopes should not exceed 2h:1v for sands and 1.5h:1v for moderate strength clays, or the Cal-OSHA excavation guidelines for the type of soil encountered. Deeper excavations may require some form of external stabilization such as shoring or bracing or flattened/stepped excavations. Maintaining adequate moisture content within the near-surface soils will improve excavation stability. Excavation activities on this site should be conducted in accordance with Cal-OSHA regulations.

Moisture Sensitive Subgrade Soils

Most of the near surface soils possess appreciable silt and clay content and may become unstable if exposed to significant moisture infiltration or disturbance by construction traffic. In addition, based on their granular content, some of the on-site soils will also be susceptible to erosion. The site should, therefore, be graded to prevent ponding of surface water and to prevent water from running into excavations.

If the construction schedule dictates that site grading will occur during a period of wet weather, allowances should be made for costs and delays associated with drying the on-site soils or import of a drier, less moisture sensitive fill material. Grading during wet or cool weather may also increase the depth of overexcavation in the pad area.

Groundwater

The static groundwater table is considered to exist at a depth greater than 25± feet below existing grade. Therefore, groundwater is not expected to impact the grading or foundation construction activities.

6.5 Foundation Design and Construction

Based on the preceding grading recommendations, it is assumed that the new building pad will be underlain by newly placed structural fill soils extending to depths of at least 3 feet below foundation bearing grade. Based on this subsurface profile, the proposed structure may be supported on shallow foundations.

Foundation Design Parameters

New square and rectangular footings may be designed as follows:

- Maximum, net allowable soil bearing pressure: 2,500 lbs/ft^2.
- Minimum wall/column footing width: 14 inches/24 inches.
- Minimum longitudinal steel reinforcement within strip footings: Four (4) No. 5 rebars (2 top and 2 bottom).
- Minimum foundation embedment: 12 inches into suitable structural fill soils, and at least 18 inches below adjacent exterior grade. Interior column footings may be placed immediately beneath the floor slab.

- It is recommended that the perimeter building foundations be continuous across all exterior doorways. Any flatwork adjacent to the exterior doors should be doweled into the perimeter foundations in a manner determined by the structural engineer.

The allowable bearing pressures presented above may be increased by 1/3 when considering short duration wind or seismic loads. The minimum steel reinforcement recommended above is based on standard geotechnical practice. Additional rigidity may be necessary for structural considerations. The actual design of the foundations should be determined by the structural engineer.

Foundation Construction

The foundation subgrade soils should be evaluated at the time of overexcavation, as discussed in Section 6.3 of this report. It is further recommended that the foundation subgrade soils be evaluated by the geotechnical engineer immediately prior to steel or concrete placement. Soils suitable for direct foundation support should consist of newly placed structural fill compacted at least 90 percent of the ASTM D-1557 maximum dry density. Any unsuitable materials should be removed to a depth of suitable bearing compacted structural fill, with the resulting excavations backfilled with compacted fill soils. As an alternative, lean concrete slurry (500 to 1,500 psi) may be used to backfill such isolated overexcavations.

The foundation subgrade soils should also be properly moisture conditioned to 2 to 4 percent above the Modified Proctor optimum, to a depth of at least 12 inches below bearing grade. Since it is typically not feasible to increase the moisture content of the floor slab and foundation subgrade soils once rough grading has been completed, care should be taken to maintain the moisture content of the building pad subgrade soils throughout the construction process.

Estimated Foundation Settlements

Post-construction total and differential settlements of shallow foundations designed and constructed in accordance with the previously presented recommendations are estimated to be less than 1.0 and 0.5 inches, respectively, under static conditions. Differential movements are expected to occur over a 50-foot span, thereby resulting in an angular distortion of less than 0.002 inches per inch.

Lateral Load Resistance

Lateral load resistance will be developed by a combination of friction acting at the base of foundations and slabs and the passive earth pressure developed by footings below grade. The following friction and passive pressure may be used to resist lateral forces:

- Passive Earth Pressure: 300 lbs/ft^3
- Friction Coefficient: 0.30

These are allowable values, and include a factor of safety. When combining friction and passive resistance, the passive pressure component should be reduced by one-third. These values assume that footings will be poured directly against compacted structural fill soils. The maximum allowable passive pressure is 3,000 lbs/ft^2.

6.6 Floor Slab Design and Construction

Subgrades which will support the new floor slab should be prepared in accordance with the recommendations contained in the ***Site Grading Recommendations*** section of this report. Based on the anticipated grading which will occur at this site, the floor of the proposed structure may be constructed as a conventional slab-on-grade, supported on newly placed structural fill, extending to a depth of at least 3 feet below finished pad grade. Based on geotechnical considerations, the floor slab may be designed as follows:

- Minimum slab thickness: 6 inches.

- Modulus of Subgrade Reaction: 100 psi/in.

- Minimum slab reinforcement: Not required for geotechnical considerations. The actual floor slab reinforcement should be determined by the structural engineer, based upon the imposed loading.

- Slab underlayment: If moisture sensitive floor coverings will be used then minimum slab underlayment should consist of a moisture vapor barrier constructed below the entire slab area where such moisture sensitive floor coverings are expected. The moisture vapor barrier should meet or exceed the Class A rating as defined by ASTM E 1745-97 and have a permeance rating less than 0.01 perms as described in ASTM E 96-95 and ASTM E 154-88. A polyolefin material such as a 15 mil Stego® Wrap Vapor Barrier or equivalent will meet these specifications. The moisture vapor barrier should be properly constructed in accordance with all applicable manufacturer specifications. Given that a rock free subgrade is anticipated and that a capillary break is not required, sand below the barrier is not required. The need for sand and/or the amount of sand above the moisture vapor barrier should be specified by the structural engineer or concrete contractor. The selection of sand above the barrier is not a geotechnical engineering issue and hence outside our purview. Where moisture sensitive floor coverings are not anticipated, the vapor barrier may be eliminated.

- Moisture condition the floor slab subgrade soils to 2 to 4 percent above the Modified Proctor optimum moisture content, to a depth of 12 inches. The moisture content of the floor slab subgrade soils should be verified by the geotechnical engineer within 24 hours prior to concrete placement.

- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

The actual design of the floor slab should be completed by the structural engineer to verify adequate thickness and reinforcement.

6.7 Exterior Flatwork Design and Construction

Subgrades which will support new exterior slabs-on-grade for sidewalks, patios, and other concrete flatwork, should be prepared in accordance with the recommendations contained in the

Grading Recommendations section of this report. Based on geotechnical considerations, exterior slabs on grade may be designed as follows:

- Minimum slab thickness: 4½ inches.
- Minimum slab reinforcement: No. 3 bars at 18 inches on center, in both directions.
- The flatwork at building entry areas should be structurally connected to the perimeter foundation that is recommended to span across the door opening. This recommendation is designed to reduce the potential for differential movement at this joint.
- Moisture condition the flatwork subgrade soils to at least 2 to 4 percent of optimum moisture content, to a depth of at least 12 inches. Adequate moisture conditioning should be verified by the geotechnical engineer 24 hours prior to concrete placement.
- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.
- Control joints should be provided at a maximum spacing of 8 feet on center in two directions for slabs and at 6 feet on center for sidewalks. Control joints are intended to direct cracking. Minor cracking of exterior concrete slabs on grade should be expected.

Expansion or felt joints should be used at the interface of exterior slabs on grade and any fixed structures to permit relative movement.

6.8 Retaining Wall Design and Construction

Although not indicated on the site plan, some small (less than 6 feet in height) retaining walls may be required in truck court area and to facilitate the new site grades. The parameters recommended for use in the design of these walls are presented below.

Retaining Wall Design Parameters

Based on the soil conditions encountered at the boring locations, the following parameters may be used in the design of new retaining walls for this site. We have provided parameters assuming the use of on-site soils for retaining wall backfill. The on-site soils generally consist of silty sands, sandy silts, and clayey sands, with some zones of clayey silts and silty clays. Based on their classifications, the on-site silty sands, sandy silts and clayey sands are expected to possess a friction angle of at least 29 degrees when compacted to 90 percent of the ASTM-1557 maximum dry density. **The clayey silts and silty clays are not recommended to be used as retaining wall backfill.**

If desired, SCG could provide design parameters for an alternative select backfill material behind the retaining walls. The use of select backfill material could result in lower lateral earth pressures. In order to use the design parameters for the imported select fill, this material must be placed within the entire active failure wedge. This wedge is defined as extending from the heel of the retaining wall upwards at an angle of approximately 60° from horizontal. If select backfill material

behind the retaining wall is desired, SCG should be contacted for supplementary recommendations.

RETAINING WALL DESIGN PARAMETERS

Design Parameter		**Soil Type**
		On-Site Silty Sands, Sandy Silts, Clayey Sands
Internal Friction Angle (ϕ)		29°
Unit Weight		133 lbs/ft^3
Equivalent Fluid Pressure:	Active Condition (level backfill)	46 lbs/ft^3
	Active Condition (2h:1v backfill)	77 lbs/ft^3
	At-Rest Condition (level backfill)	69 lbs/ft^3

Regardless of the backfill type, the walls should be designed using a soil-footing coefficient of friction of 0.30 and an equivalent passive pressure of 300 lbs/ft^3. The structural engineer should incorporate appropriate factors of safety in the design of the retaining walls.

The active earth pressure may be used for the design of retaining walls that do not directly support structures or support soils that in turn support structures and which will be allowed to deflect. The at-rest earth pressure should be used for walls that will not be allowed to deflect such as those which will support foundation bearing soils, or which will support foundation loads directly.

Where the soils on the toe side of the retaining wall are not covered by a "hard" surface such as a structure or pavement, the upper 1 foot of soil should be neglected when calculating passive resistance due to the potential for the material to become disturbed or degraded during the life of the structure.

Seismic Lateral Earth Pressures

In accordance with the 2019 CBC, any retaining walls more than 6 feet in height must be designed for seismic lateral earth pressures. If walls 6 feet or more are required for this site, the geotechnical engineer should be contacted for supplementary seismic lateral earth pressure recommendations.

Retaining Wall Foundation Design

The retaining wall foundations should be supported within newly placed compacted structural fill, extending to a depth of at least 2 feet below proposed foundation bearing grade. Foundations to support new retaining walls should be designed in accordance with the general Foundation Design Parameters presented in a previous section of this report.

Backfill Material

On-site soils may be used to backfill the retaining walls. However, all backfill material placed within 3 feet of the back-wall face should have a particle size no greater than 3 inches. **The on-site clayey silts and silty clays are not recommended to be used as retaining wall backfill.** The retaining wall backfill materials should be well-graded.

It is recommended that a properly installed prefabricated drainage composite such as the MiraDRAIN 6000XL (or approved equivalent), which is specifically designed for use behind retaining walls be used. If the drainage composite material is not covered by an impermeable surface, such as a structure or pavement, a 12-inch thick layer of a low permeability soil should be placed over the backfill to reduce surface water migration to the underlying soils. The drainage composite should be separated from the backfill soils by a suitable geotextile, approved by the geotechnical engineer.

All retaining wall backfill should be placed and compacted under engineering-controlled conditions in the necessary layer thicknesses to ensure an in-place density between 90 and 93 percent of the maximum dry density as determined by the Modified Proctor test (ASTM D1557). Care should be taken to avoid over-compaction of the soils behind the retaining walls, and the use of heavy compaction equipment should be avoided.

Subsurface Drainage

As previously indicated, the retaining wall design parameters are based upon drained backfill conditions. Consequently, some form of permanent drainage system will be necessary in conjunction with the appropriate backfill material. Subsurface drainage may consist of either:

- A weep hole drainage system typically consisting of a series of 2-inch diameter holes in the wall situated slightly above the ground surface elevation on the exposed side of the wall and at an approximate 10-foot on-center spacing. Alternatively, 4-inch diameter holes at an approximate 20-foot on-center spacing can be used for this type of drainage system. In addition, the weep holes should include a 2 cubic foot pocket of open graded gravel, surrounded by an approved geotextile fabric, at each weep hole location.

- A 4-inch diameter perforated pipe surrounded by 2 cubic feet of gravel per linear foot of drain placed behind the wall, above the retaining wall footing. The gravel layer should be wrapped in a suitable geotextile fabric to reduce the potential for migration of fines. The footing drain should be extended to daylight or tied into a storm drainage system. The actual design of this type of system should be determined by the civil engineer to verify that the drainage system possesses the adequate capacity and slope for its intended use.

Weep holes or a footing drain will not be required for building stem walls.

6.9 Pavement Design Parameters

Site preparation in the pavement area should be completed as previously recommended in the ***Site Grading Recommendations*** section of this report. The subsequent pavement recommendations assume proper drainage and construction monitoring, and are based on either PCA or CALTRANS design parameters for a twenty (20) year design period. However, these designs also assume a routine pavement maintenance program to obtain the anticipated 20-year pavement service life.

Pavement Subgrades

It is anticipated that the new pavements will be primarily supported on a layer of compacted structural fill, consisting of scarified, thoroughly moisture conditioned and recompacted existing soils. The on-site soils generally consist of silty sands, sandy silts, and clayey sands with some zones of clayey silts and silty clays. These soils are generally considered to possess fair to good pavement support characteristics with estimated R-values ranging from 30 to 40. The subsequent pavement design is therefore based upon an assumed R-value of 30. Any fill material imported to the site should have support characteristics equal to or greater than that of the on-site soils and be placed and compacted under engineering controlled conditions. It is recommended that R-value testing be performed after completion of rough grading. Depending upon the results of the R-value testing, it may be feasible to use thinner pavement sections in some areas of the site.

Asphaltic Concrete

Presented below are the recommended thicknesses for new flexible pavement structures consisting of asphaltic concrete over a granular base. The pavement designs are based on the traffic indices (TI's) indicated. The client and/or civil engineer should verify that these TI's are representative of the anticipated traffic volumes. If the client and/or civil engineer determine that the expected traffic volume will exceed the applicable traffic index, we should be contacted for supplementary recommendations. The design traffic indices equate to the following approximate daily traffic volumes over a 20 year design life, assuming six operational traffic days per week.

Traffic Index	No. of Heavy Trucks per Day
4.0	0
5.0	1
6.0	3
7.0	11
8.0	35
9.0	93

For the purpose of the traffic volumes indicated above, a truck is defined as a 5-axle tractor trailer unit with one 8-kip axle and two 32-kip tandem axles. All of the traffic indices allow for 1,000 automobiles per day.

ASPHALT PAVEMENTS (R=30)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	6	8	10	11	13
Compacted Subgrade	12	12	12	12	12

The aggregate base course should be compacted to at least 95 percent of the ASTM D-1557 maximum dry density. The asphaltic concrete should be compacted to at least 95 percent of the Marshall maximum density, as determined by ASTM D-2726. The aggregate base course may consist of crushed aggregate base (CAB) or crushed miscellaneous base (CMB), which is a recycled gravel, asphalt and concrete material. The gradation, R-Value, Sand Equivalent, and Percentage Wear of the CAB or CMB should comply with appropriate specifications contained in the current edition of the "Greenbook" Standard Specifications for Public Works Construction.

Portland Cement Concrete

The preparation of the subgrade soils within concrete pavement areas should be performed as previously described for proposed asphalt pavement areas. The minimum recommended thicknesses for the Portland Cement Concrete pavement sections are as follows:

PORTLAND CEMENT CONCRETE PAVEMENTS (R=30)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 5.0 to 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	5½	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

The concrete should have a 28-day compressive strength of at least 3,000 psi. The maximum joint spacing within all of the PCC pavements is recommended to be equal to or less than 30 times the pavement thickness.

7.0 GENERAL COMMENTS

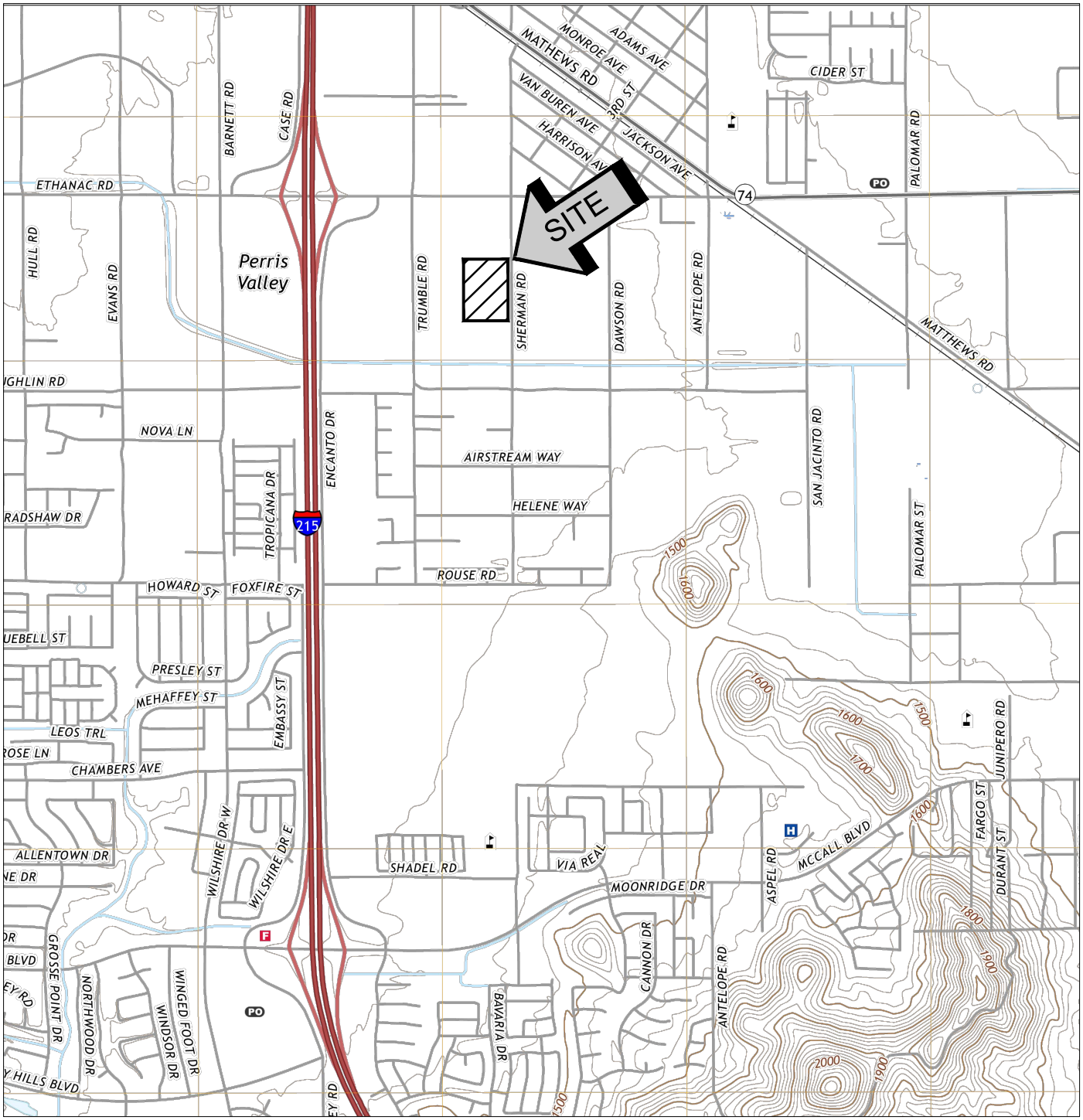
This report has been prepared as an instrument of service for use by the client, in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, civil engineer, and/or structural engineer. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur. The client(s)' reliance upon this report is subject to the Engineering Services Agreement, incorporated into our proposal for this project.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and sample depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted.

The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

APPENDIX A



SOURCE: USGS TOPOGRAPHIC MAP OF THE ROMOLAND QUADRANGLE, RIVERSIDE COUNTY, CALIFORNIA, 2022

SITE LOCATION MAP

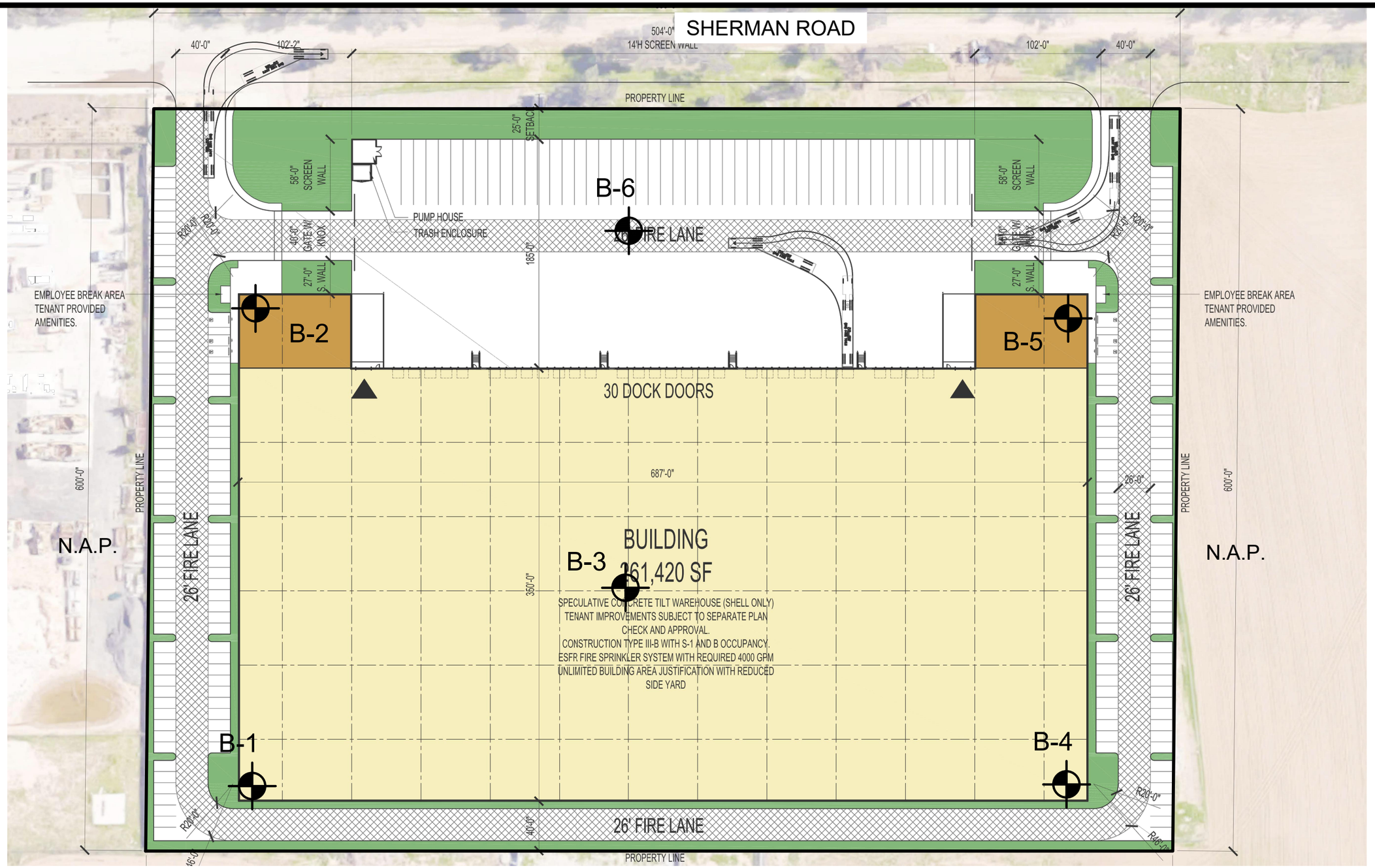
PROPOSED MENIFEE COMMERCE CENTER 4

MENIFEE, CALIFORNIA

SCALE: 1" = 2000'	
DRAWN: OS CHKD: RGT	
SCG PROJECT 22G173-1	
PLATE 1	

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



GEOTECHNICAL LEGEND

APPROXIMATE BORING LOCATION

NORTH

SoCalGeo

NOTE: SITE PLAN PROVIDED BY THE CLIENT

BORING LOCATION PLAN

MENIFEE COMMERCE CENTER - PHASE III

MENIFEE, CALIFORNIA

SCALE: 1" = 80'

DRAWN: OS
CHKD: RGT

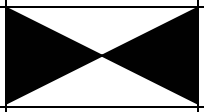
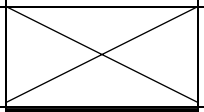
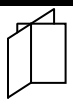
SCG PROJECT
22G173-1

PLATE 2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX B

BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

DEPTH: Distance in feet below the ground surface.

SAMPLE: Sample Type as depicted above.

BLOW COUNT: Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

POCKET PEN.: Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

GRAPHIC LOG: Graphic Soil Symbol as depicted on the following page.

DRY DENSITY: Dry density of an undisturbed or relatively undisturbed sample in lbs/ft^3.

MOISTURE CONTENT: Moisture content of a soil sample, expressed as a percentage of the dry weight.

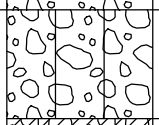
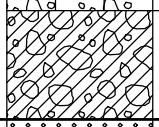
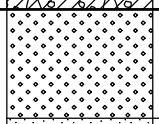
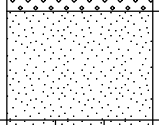
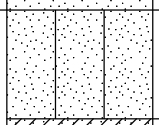
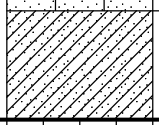
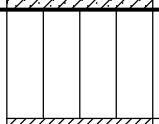
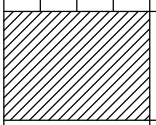
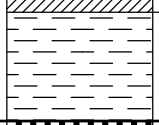
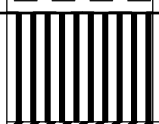
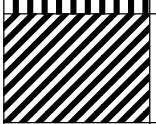
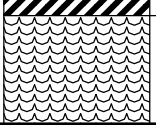
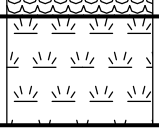
LIQUID LIMIT: The moisture content above which a soil behaves as a liquid.

PLASTIC LIMIT: The moisture content above which a soil behaves as a plastic.

PASSING #200 SIEVE: The percentage of the sample finer than the #200 standard sieve.

UNCONFINED SHEAR: The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-1

JOB NO.: 22G173-1
PROJECT: Menifee Commerce Center Phase III
LOCATION: Menifee, California

DRILLING DATE: 4/27/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 19 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
0		87/10"			OLDER ALLUVIUM: Light Orange Brown Silty fine Sand, little medium to coarse Sand, trace Calcareous nodules, very dense-damp to moist		12					
		85					7					
5		37			Light Brown Clayey fine to coarse Sand, little Silt, little Calcareous nodules, dense to very dense-moist		10					
		87					12					
10					Light Brown fine to coarse Sand, little Clay, trace Silt, little Calcareous nodules, dense-moist							
		34					10					
15					Light Brown fine to coarse Sand, little Silt, dense-moist							
		49					10					
20												
		36					8					
25					Boring Terminated at 25'							

TBL 22G173-1.GPJ SOCALGEO.GDT 6/1/22

TEST BORING LOG

PLATE B-1

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-2

JOB NO.: 22G173-1
PROJECT: Menifee Commerce Center Phase III
LOCATION: Menifee, California

DRILLING DATE: 4/27/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 15 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		70			FILL: Dark Brown Clayey fine to coarse Sand, little Silt, dense-moist	121	10					
		70			OLDER ALLUVIUM: Brown Clayey fine Sand, little Silt, trace medium to coarse Sand, slightly porous, trace Iron oxide staining, dense to very dense-damp to moist	121	9					
5		50/5"				118	7					
		77			Light Brown fine Sandy Silt, trace to little Clay, dense to very dense-moist	118	11					
		69				124	9					
10												
		33			Light Brown fine to coarse Sand, little Clay, little Calcareous nodules, dense to very dense-moist		9					
15												
		61					10					
20					Boring Terminated at 20'							

TBL 22G173-1.GPJ SOCALGEO.GDT 6/1/22

TEST BORING LOG

PLATE B-2

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-3

JOB NO.: 22G173-1
PROJECT: Menifee Commerce Center Phase III
LOCATION: Menifee, California

DRILLING DATE: 4/27/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 9 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		43	4.5		FILL: Dark Brown Clayey Silt, little fine to coarse Sand, very stiff-damp	121	7					
		23	4.5		OLDER ALLUVIUM: Dark Brown fine Sandy Clay, little Silt, trace Calcareous nodules, very stiff-very moist	119	14					
5		40			Brown fine Sandy Silt, trace Clay, trace medium Sand, medium dense-moist	115	10					
		60			Brown Clayey fine Sand, little Silt, dense-moist	121	9					
		50/5"			Light Brown fine Sandy Silt, trace Clay, very dense-moist	120	9					
10					Brown Silty fine to coarse Sand, little fine to coarse Gravel, very dense-moist							
		50/5"				120	10					
15					Boring Terminated at 15'							

TBL 22G173-1.GPJ SOCALGEO.GDT 6/1/22

TEST BORING LOG

PLATE B-3

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-4

JOB NO.: 22G173-1
PROJECT: Menifee Commerce Center Phase III
LOCATION: Menifee, California

DRILLING DATE: 4/27/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 13 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		37			OLDER ALLUVIUM: Dark Brown Clayey fine to medium Sand, little Silt, little fine to coarse Gravel, little Calcareous nodules, medium dense-damp	124	10					EI = 36 @ 0-5'
		70			Light Brown Silty fine Sand, trace medium to coarse Sand, trace Iron oxide staining, trace Calcareous nodules, dense-moist	113	9					
5		89/9"			Light Brown fine Sandy Silt, trace to little Clay, very dense-moist to very moist	121	9					
		77				125	11					
		82				124	13					
10												
		54					11					
15												
					Light Brown Clayey fine to medium Sand, very dense-moist							
		50					10					
20					Boring Terminated at 20'							

TBL 22G173-1.GPJ SOCALGEO.GDT 6/1/22

TEST BORING LOG **PLATE B-4**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-5

JOB NO.: 22G173-1
PROJECT: Menifee Commerce Center Phase III
LOCATION: Menifee, California

DRILLING DATE: 4/27/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 21 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		16			FILL: Light Gray Brown Silty fine to coarse Sand, medium dense-damp		3					
		14	4.0		OLDER ALLUVIUM: Dark Brown Silty Clay, little fine Sand, stiff-very moist		17					
5		41			OLDER ALLUVIUM: Brown Clayey fine to coarse Sand, trace Silt, little Calcareous nodules, dense-moist		10					
		38					8					
10					Brown fine to coarse Sandy Clay, little Silt, stiff-very moist							
		9	3.0				21					
15					Brown Silty fine Sand, dense-moist							
		49					8					
20					Red Brown fine Sandy Silt, little Clay, very dense-very moist							
		52					19					
25					Boring Terminated at 25'							

TBL 22G173-1.GPJ SOCALGEO.GDT 6/1/22

TEST BORING LOG

PLATE B-5

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-6

JOB NO.: 22G173-1
PROJECT: Menifee Commerce Center Phase III
LOCATION: Menifee, California

DRILLING DATE: 4/27/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 17 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		17			FILL: Gray Brown Silty fine to coarse Sand, little fine to coarse Gravel, medium dense-damp		4					
		29	4.5		OLDER ALLUVIUM: Brown fine Sandy Clay, little Silt, very stiff-very moist		14					
5		33			Brown Silty fine Sand, trace Clay, dense-moist		10					
		50			Brown Clayey fine to coarse Sand, little Silt, little Calcareous nodules, very dense-moist		8					
10												
		42	4.5		Gray Brown fine to medium Sandy Clay, trace coarse Sand, hard-very moist		16					
15												
		54			Gray Brown Clayey fine to coarse Sand, little Silt, very dense-moist		10					
20					Boring Terminated at 20'							

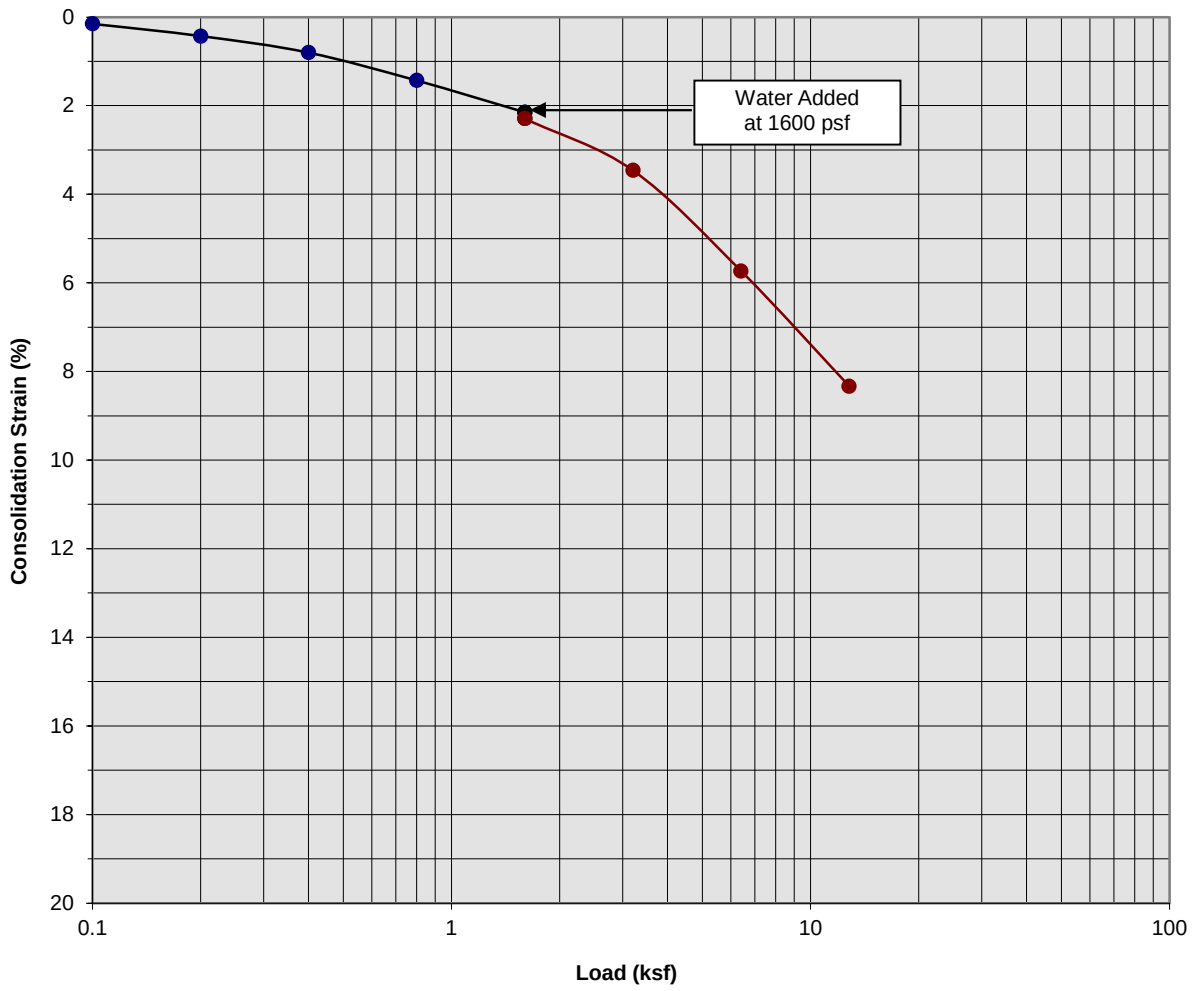
TBL 22G173-1.GPJ SOCALGEO.GDT 6/1/22

TEST BORING LOG

PLATE B-6

APPENDIX C

Consolidation/Collapse Test Results



Classification: Dark Brown fine Sandy Clay, little Silt

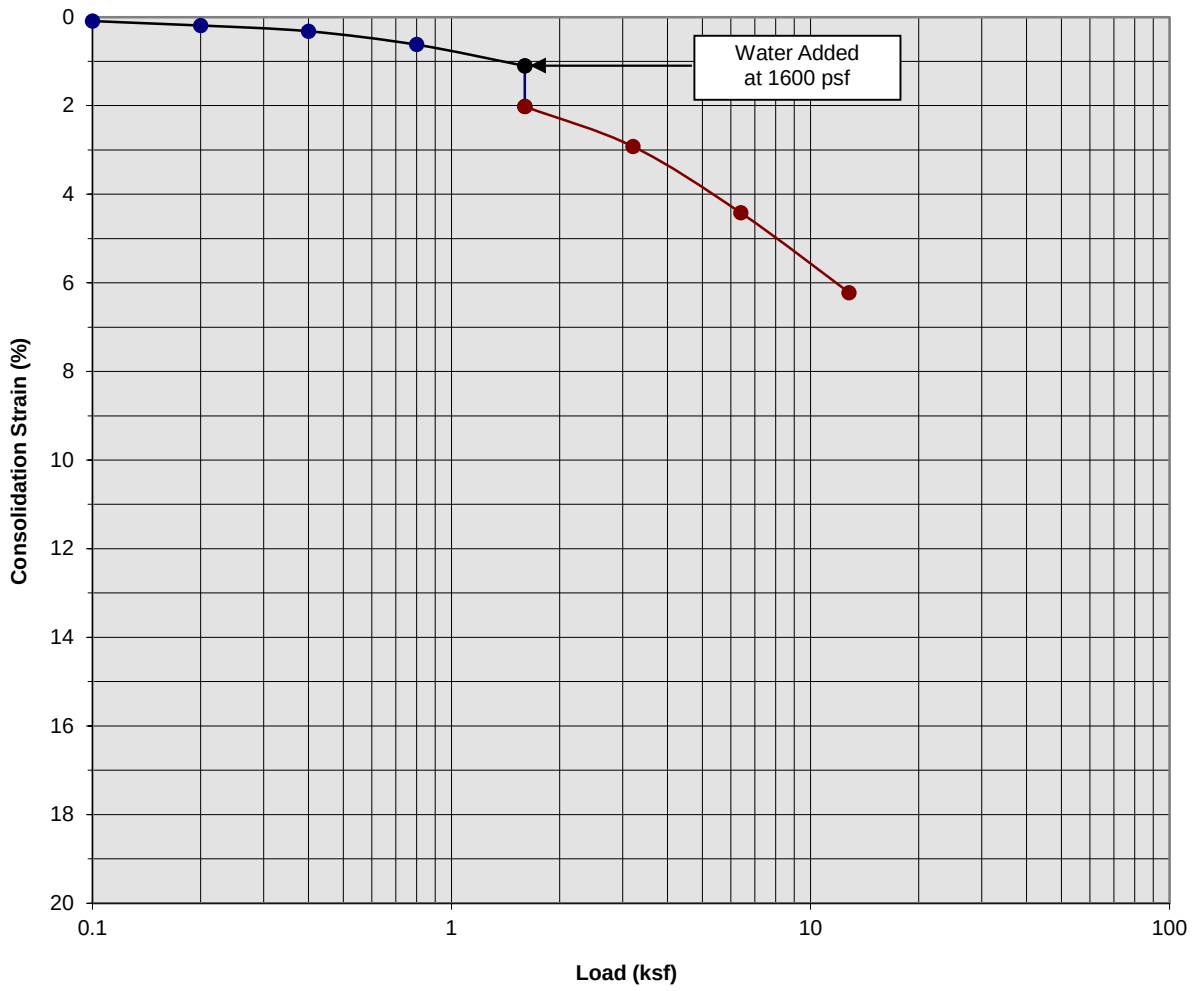
Boring Number:	B-3	Initial Moisture Content (%)	14
Sample Number:	---	Final Moisture Content (%)	16
Depth (ft)	3 to 4	Initial Dry Density (pcf)	119.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	129.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.14

Menifee Commerce Center - Phase III
Menifee, California
Project No. 22G173

PLATE C-1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Brown fine Sandy Silt, trace Clay, trace medium Sand

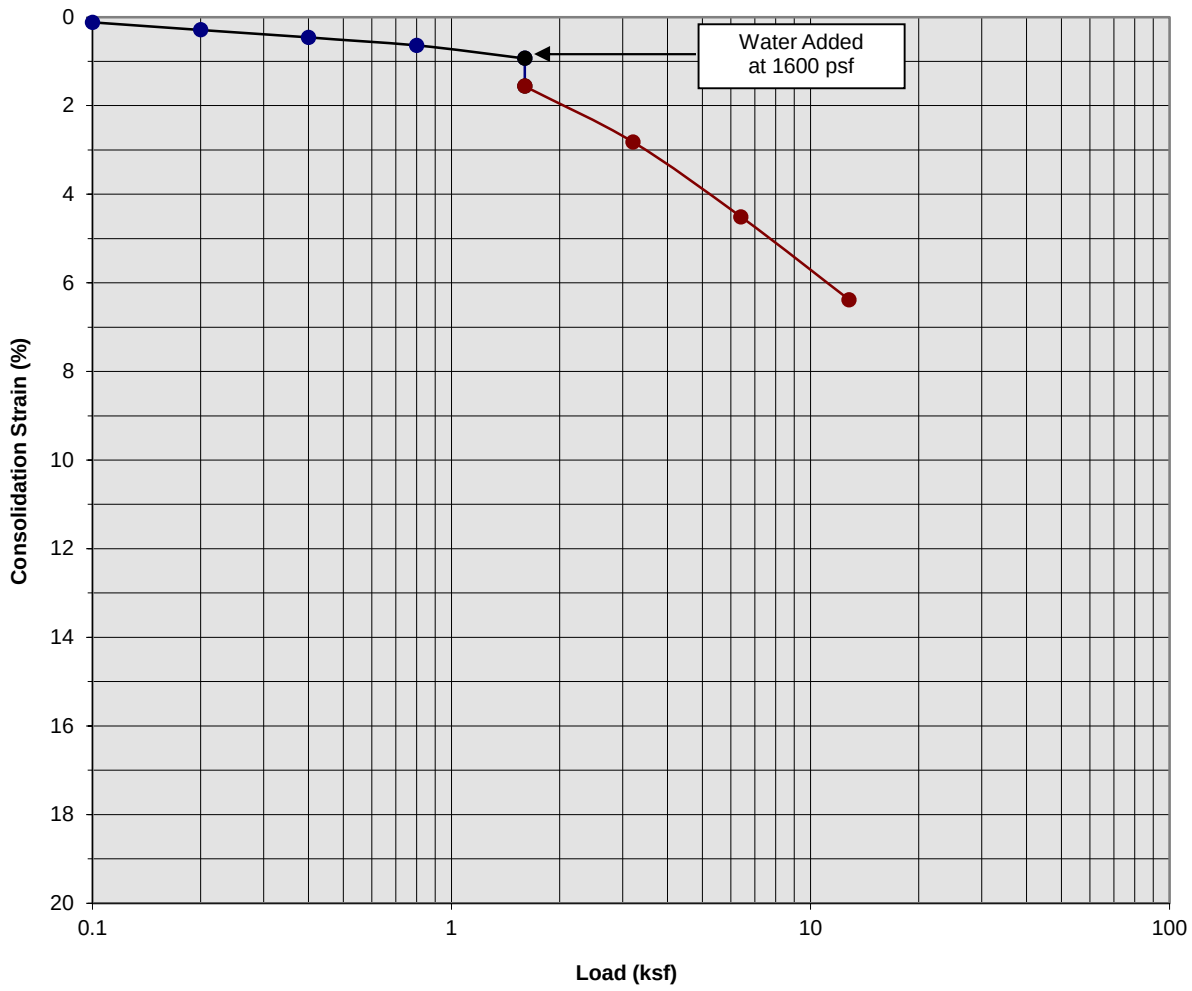
Boring Number:	B-3	Initial Moisture Content (%)	10
Sample Number:	---	Final Moisture Content (%)	17
Depth (ft)	5 to 6	Initial Dry Density (pcf)	115.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	122.0
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.92

Menifee Commerce Center - Phase III
Menifee, California
Project No. 22G173

PLATE C-2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Brown Clayey fine Sand, little Silt

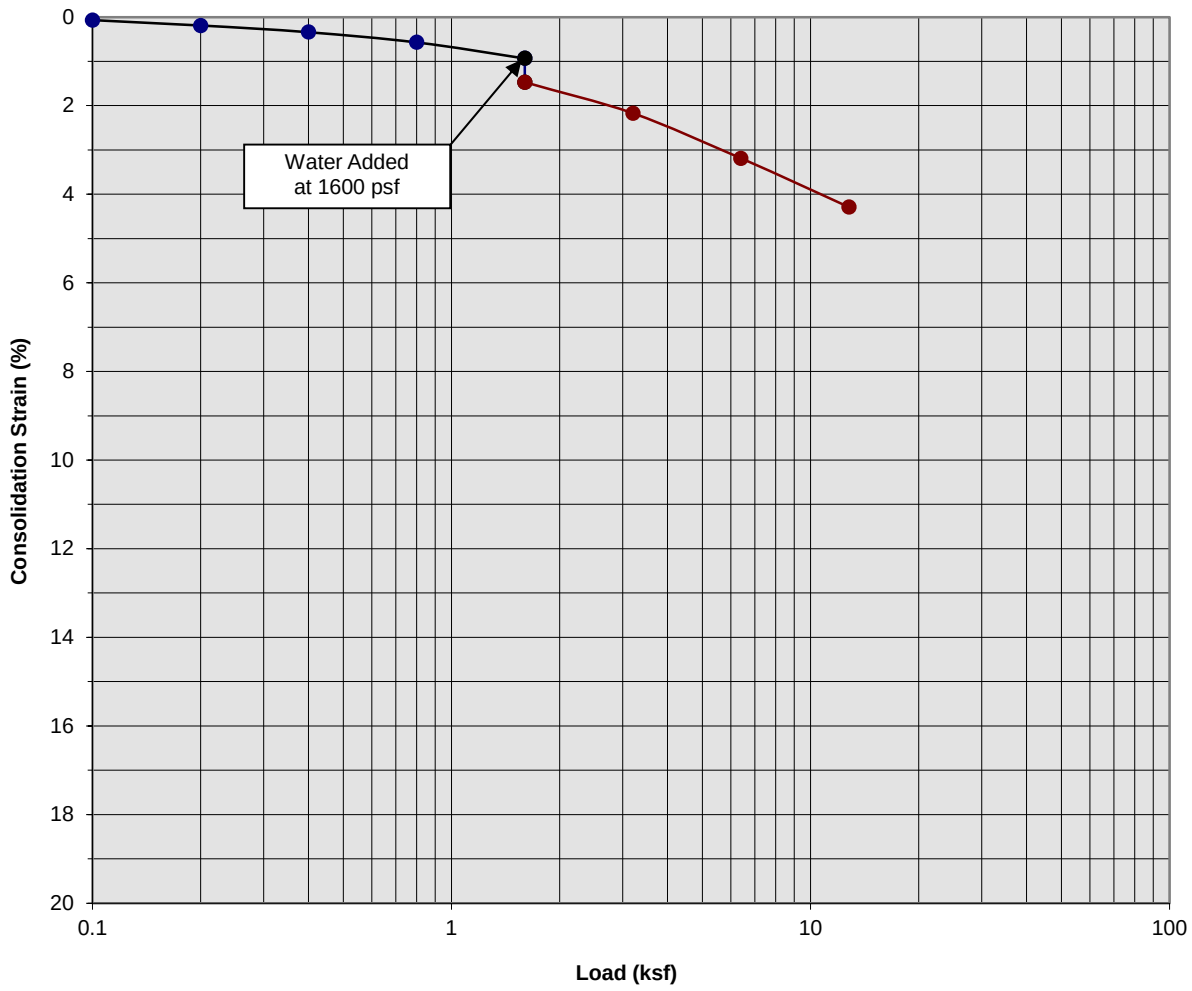
Boring Number:	B-3	Initial Moisture Content (%)	9
Sample Number:	---	Final Moisture Content (%)	13
Depth (ft)	7 to 8	Initial Dry Density (pcf)	121.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	129.0
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.63

Menifee Commerce Center - Phase III
Menifee, California
Project No. 22G173

PLATE C-3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Light Brown fine Sandy Silt, trace Clay

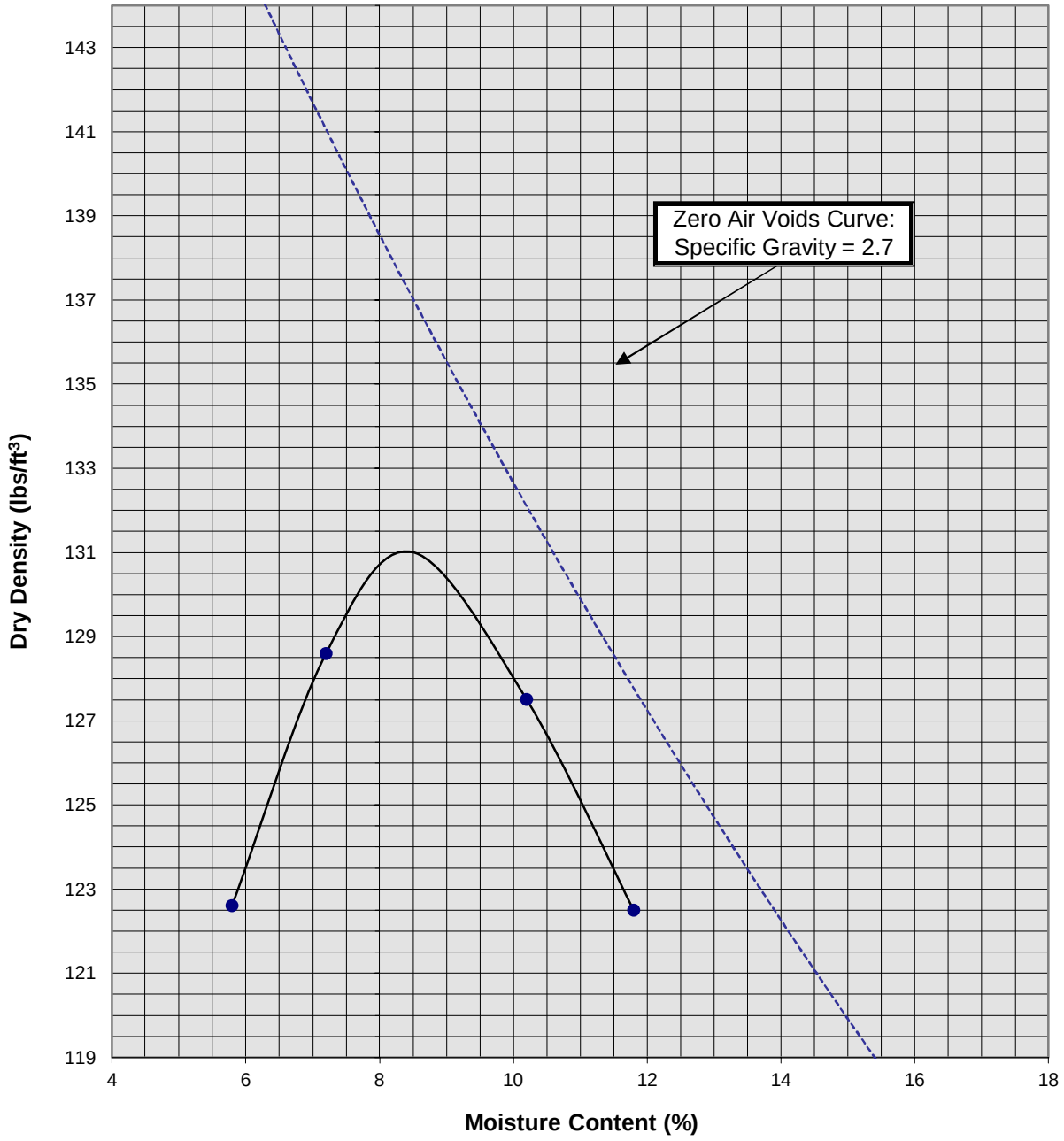
Boring Number:	B-3	Initial Moisture Content (%)	9
Sample Number:	---	Final Moisture Content (%)	15
Depth (ft)	9 to 10	Initial Dry Density (pcf)	120.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	125.0
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.54

Menifee Commerce Center - Phase III
Menifee, California
Project No. 22G173

PLATE C-4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Moisture/Density Relationship
ASTM D-1557



Soil ID Number	B-5 @ 0 to 5'
Optimum Moisture (%)	8.5
Maximum Dry Density (pcf)	131
Soil Classification	Light Gray Brown Silty fine to coarse Sand

Menifee Commerce Center - Phase III
Menifee, CA
Project No. 22G173-1

PLATE C-5

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

APPENDIX D

GRADING GUIDE SPECIFICATIONS

These grading guide specifications are intended to provide typical procedures for grading operations. They are intended to supplement the recommendations contained in the geotechnical investigation report for this project. Should the recommendations in the geotechnical investigation report conflict with the grading guide specifications, the more site specific recommendations in the geotechnical investigation report will govern.

General

- The Earthwork Contractor is responsible for the satisfactory completion of all earthwork in accordance with the plans and geotechnical reports, and in accordance with city, county, and applicable building codes.

- The Geotechnical Engineer is the representative of the Owner/Builder for the purpose of implementing the report recommendations and guidelines. These duties are not intended to relieve the Earthwork Contractor of any responsibility to perform in a workman-like manner, nor is the Geotechnical Engineer to direct the grading equipment or personnel employed by the Contractor.

- The Earthwork Contractor is required to notify the Geotechnical Engineer of the anticipated work and schedule so that testing and inspections can be provided. If necessary, work may be stopped and redone if personnel have not been scheduled in advance.

- The Earthwork Contractor is required to have suitable and sufficient equipment on the job-site to process, moisture condition, mix and compact the amount of fill being placed to the approved compaction. In addition, suitable support equipment should be available to conform with recommendations and guidelines in this report.

- Canyon cleanouts, overexcavation areas, processed ground to receive fill, key excavations, subdrains and benches should be observed by the Geotechnical Engineer prior to placement of any fill. It is the Earthwork Contractor's responsibility to notify the Geotechnical Engineer of areas that are ready for inspection.

- Excavation, filling, and subgrade preparation should be performed in a manner and sequence that will provide drainage at all times and proper control of erosion. Precipitation, springs, and seepage water encountered shall be pumped or drained to provide a suitable working surface. The Geotechnical Engineer must be informed of springs or water seepage encountered during grading or foundation construction for possible revision to the recommended construction procedures and/or installation of subdrains.

Site Preparation

- The Earthwork Contractor is responsible for all clearing, grubbing, stripping and site preparation for the project in accordance with the recommendations of the Geotechnical Engineer.

- If any materials or areas are encountered by the Earthwork Contractor which are suspected of having toxic or environmentally sensitive contamination, the Geotechnical Engineer and Owner/Builder should be notified immediately.

- Major vegetation should be stripped and disposed of off-site. This includes trees, brush, heavy grasses and any materials considered unsuitable by the Geotechnical Engineer.

- Underground structures such as basements, cesspools or septic disposal systems, mining shafts, tunnels, wells and pipelines should be removed under the inspection of the Geotechnical Engineer and recommendations provided by the Geotechnical Engineer and/or city, county or state agencies. If such structures are known or found, the Geotechnical Engineer should be notified as soon as possible so that recommendations can be formulated.

- Any topsoil, slopewash, colluvium, alluvium and rock materials which are considered unsuitable by the Geotechnical Engineer should be removed prior to fill placement.

- Remaining voids created during site clearing caused by removal of trees, foundations basements, irrigation facilities, etc., should be excavated and filled with compacted fill.

- Subsequent to clearing and removals, areas to receive fill should be scarified to a depth of 10 to 12 inches, moisture conditioned and compacted

- The moisture condition of the processed ground should be at or slightly above the optimum moisture content as determined by the Geotechnical Engineer. Depending upon field conditions, this may require air drying or watering together with mixing and/or discing.

Compacted Fills

- Soil materials imported to or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable in the opinion of the Geotechnical Engineer. Unless otherwise approved by the Geotechnical Engineer, all fill materials shall be free of deleterious, organic, or frozen matter, shall contain no chemicals that may result in the material being classified as “contaminated,” and shall be very low to non-expansive with a maximum expansion index (EI) of 50. The top 12 inches of the compacted fill should have a maximum particle size of 3 inches, and all underlying compacted fill material a maximum 6-inch particle size, except as noted below.

- All soils should be evaluated and tested by the Geotechnical Engineer. Materials with high expansion potential, low strength, poor gradation or containing organic materials may require removal from the site or selective placement and/or mixing to the satisfaction of the Geotechnical Engineer.

- Rock fragments or rocks less than 6 inches in their largest dimensions, or as otherwise determined by the Geotechnical Engineer, may be used in compacted fill, provided the distribution and placement is satisfactory in the opinion of the Geotechnical Engineer.

- Rock fragments or rocks greater than 12 inches should be taken off-site or placed in accordance with recommendations and in areas designated as suitable by the Geotechnical Engineer. These materials should be placed in accordance with Plate D-8 of these Grading Guide Specifications and in accordance with the following recommendations:

    - Rocks 12 inches or more in diameter should be placed in rows at least 15 feet apart, 15 feet from the edge of the fill, and 10 feet or more below subgrade. Spaces should be left between each rock fragment to provide for placement and compaction of soil around the fragments.

    - Fill materials consisting of soil meeting the minimum moisture content requirements and free of oversize material should be placed between and over the rows of rock or

concrete. Ample water and compactive effort should be applied to the fill materials as they are placed in order that all of the voids between each of the fragments are filled and compacted to the specified density.

- Subsequent rows of rocks should be placed such that they are not directly above a row placed in the previous lift of fill. A minimum 5-foot offset between rows is recommended.

- To facilitate future trenching, oversized material should not be placed within the range of foundation excavations, future utilities or other underground construction unless specifically approved by the soil engineer and the developer/owner representative.

- Fill materials approved by the Geotechnical Engineer should be placed in areas previously prepared to receive fill and in evenly placed, near horizontal layers at about 6 to 8 inches in loose thickness, or as otherwise determined by the Geotechnical Engineer for the project.

- Each layer should be moisture conditioned to optimum moisture content, or slightly above, as directed by the Geotechnical Engineer. After proper mixing and/or drying, to evenly distribute the moisture, the layers should be compacted to at least 90 percent of the maximum dry density in compliance with ASTM D-1557-78 unless otherwise indicated.

- Density and moisture content testing should be performed by the Geotechnical Engineer at random intervals and locations as determined by the Geotechnical Engineer. These tests are intended as an aid to the Earthwork Contractor, so he can evaluate his workmanship, equipment effectiveness and site conditions. The Earthwork Contractor is responsible for compaction as required by the Geotechnical Report(s) and governmental agencies.

- Fill areas unused for a period of time may require moisture conditioning, processing and recompaction prior to the start of additional filling. The Earthwork Contractor should notify the Geotechnical Engineer of his intent so that an evaluation can be made.

- Fill placed on ground sloping at a 5-to-1 inclination (horizontal-to-vertical) or steeper should be benched into bedrock or other suitable materials, as directed by the Geotechnical Engineer. Typical details of benching are illustrated on Plates D-2, D-4, and D-5.

- Cut/fill transition lots should have the cut portion overexcavated to a depth of at least 3 feet and rebuilt with fill (see Plate D-1), as determined by the Geotechnical Engineer.

- All cut lots should be inspected by the Geotechnical Engineer for fracturing and other bedrock conditions. If necessary, the pads should be overexcavated to a depth of 3 feet and rebuilt with a uniform, more cohesive soil type to impede moisture penetration.

- Cut portions of pad areas above buttresses or stabilizations should be overexcavated to a depth of 3 feet and rebuilt with uniform, more cohesive compacted fill to impede moisture penetration.

- Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls must be placed and compacted with care to ensure that excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below grade walls must be properly tested and approved by the Geotechnical Engineer with consideration of the lateral earth pressure used in the design.

Foundations

- The foundation influence zone is defined as extending one foot horizontally from the outside edge of a footing, and proceeding downward at a ½ horizontal to 1 vertical (0.5:1) inclination.

- Where overexcavation beneath a footing subgrade is necessary, it should be conducted so as to encompass the entire foundation influence zone, as described above.

- Compacted fill adjacent to exterior footings should extend at least 12 inches above foundation bearing grade. Compacted fill within the interior of structures should extend to the floor subgrade elevation.

Fill Slopes

- The placement and compaction of fill described above applies to all fill slopes. Slope compaction should be accomplished by overfilling the slope, adequately compacting the fill in even layers, including the overfilled zone and cutting the slope back to expose the compacted core

- Slope compaction may also be achieved by backrolling the slope adequately every 2 to 4 vertical feet during the filling process as well as requiring the earth moving and compaction equipment to work close to the top of the slope. Upon completion of slope construction, the slope face should be compacted with a sheepsfoot connected to a sideboom and then grid rolled. This method of slope compaction should only be used if approved by the Geotechnical Engineer.

- Sandy soils lacking in adequate cohesion may be unstable for a finished slope condition and therefore should not be placed within 15 horizontal feet of the slope face.

- All fill slopes should be keyed into bedrock or other suitable material. Fill keys should be at least 15 feet wide and inclined at 2 percent into the slope. For slopes higher than 30 feet, the fill key width should be equal to one-half the height of the slope (see Plate D-5).

- All fill keys should be cleared of loose slough material prior to geotechnical inspection and should be approved by the Geotechnical Engineer and governmental agencies prior to filling.

- The cut portion of fill over cut slopes should be made first and inspected by the Geotechnical Engineer for possible stabilization requirements. The fill portion should be adequately keyed through all surficial soils and into bedrock or suitable material. Soils should be removed from the transition zone between the cut and fill portions (see Plate D-2).

Cut Slopes

- All cut slopes should be inspected by the Geotechnical Engineer to determine the need for stabilization. The Earthwork Contractor should notify the Geotechnical Engineer when slope cutting is in progress at intervals of 10 vertical feet. Failure to notify may result in a delay in recommendations.

- Cut slopes exposing loose, cohesionless sands should be reported to the Geotechnical Engineer for possible stabilization recommendations.

- All stabilization excavations should be cleared of loose slough material prior to geotechnical inspection. Stakes should be provided by the Civil Engineer to verify the location and dimensions of the key. A typical stabilization fill detail is shown on Plate D-5.

- Stabilization key excavations should be provided with subdrains. Typical subdrain details are shown on Plates D-6.

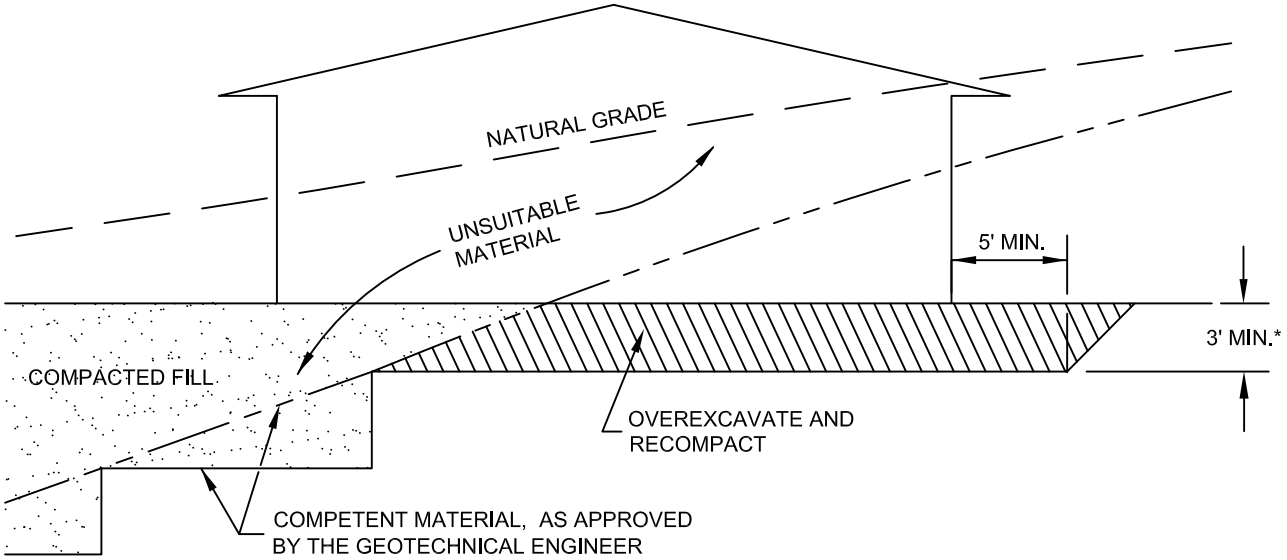
Subdrains

- Subdrains may be required in canyons and swales where fill placement is proposed. Typical subdrain details for canyons are shown on Plate D-3. Subdrains should be installed after approval of removals and before filling, as determined by the Soils Engineer.

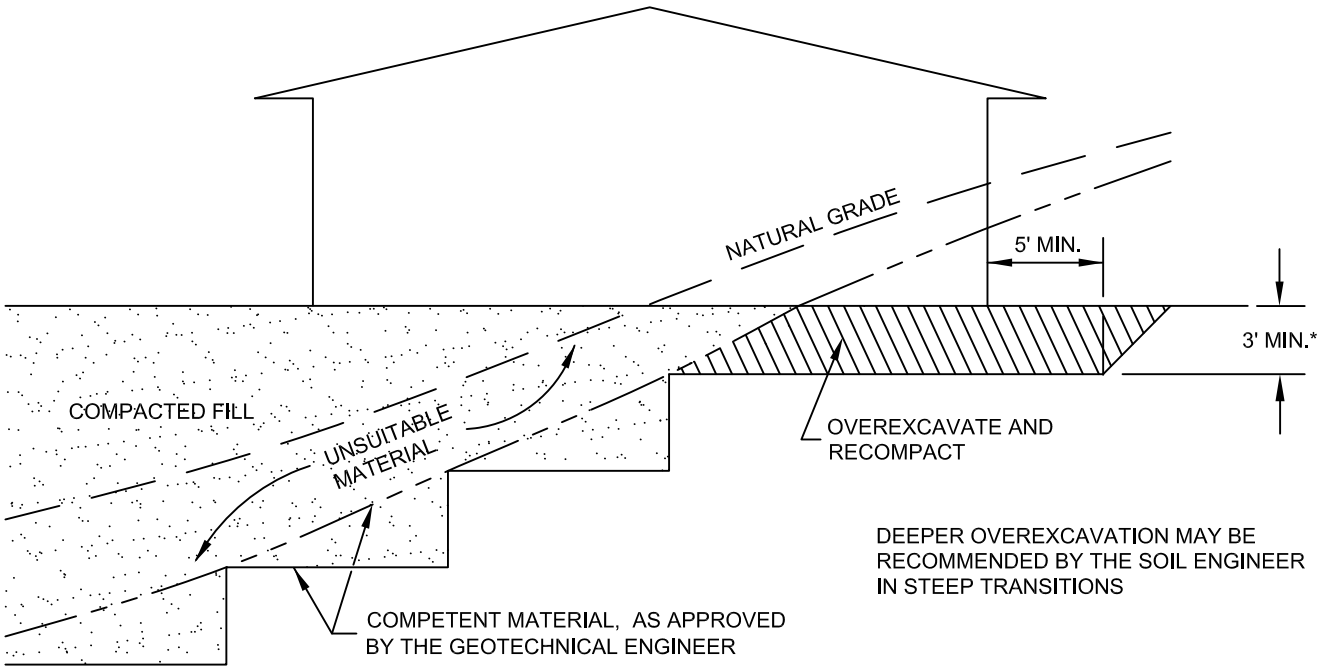
- Plastic pipe may be used for subdrains provided it is Schedule 40 or SDR 35 or equivalent. Pipe should be protected against breakage, typically by placement in a square-cut (backhoe) trench or as recommended by the manufacturer.

- Filter material for subdrains should conform to CALTRANS Specification 68-1.025 or as approved by the Geotechnical Engineer for the specific site conditions. Clean ¾-inch crushed rock may be used provided it is wrapped in an acceptable filter cloth and approved by the Geotechnical Engineer. Pipe diameters should be 6 inches for runs up to 500 feet and 8 inches for the downstream continuations of longer runs. Four-inch diameter pipe may be used in buttress and stabilization fills.

CUT LOT



CUT/FILL LOT (TRANSITION)



*SEE TEXT OF REPORT FOR SPECIFIC RECOMMENDATION. ACTUAL DEPTH OF OVEREXCAVATION MAY BE GREATER.

TRANSITION LOT DETAIL

GRADING GUIDE SPECIFICATIONS

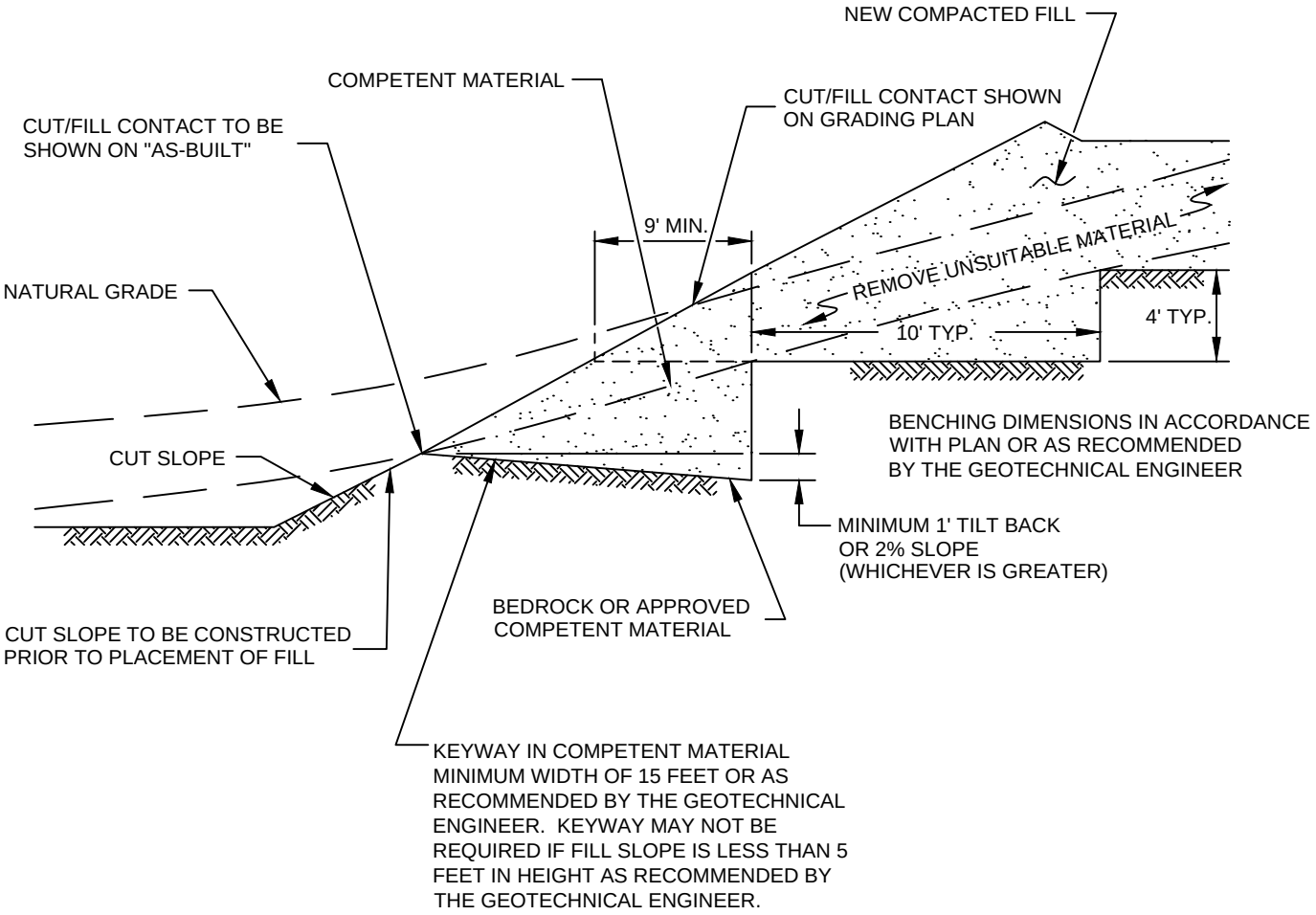
NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-1

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



FILL ABOVE CUT SLOPE DETAIL

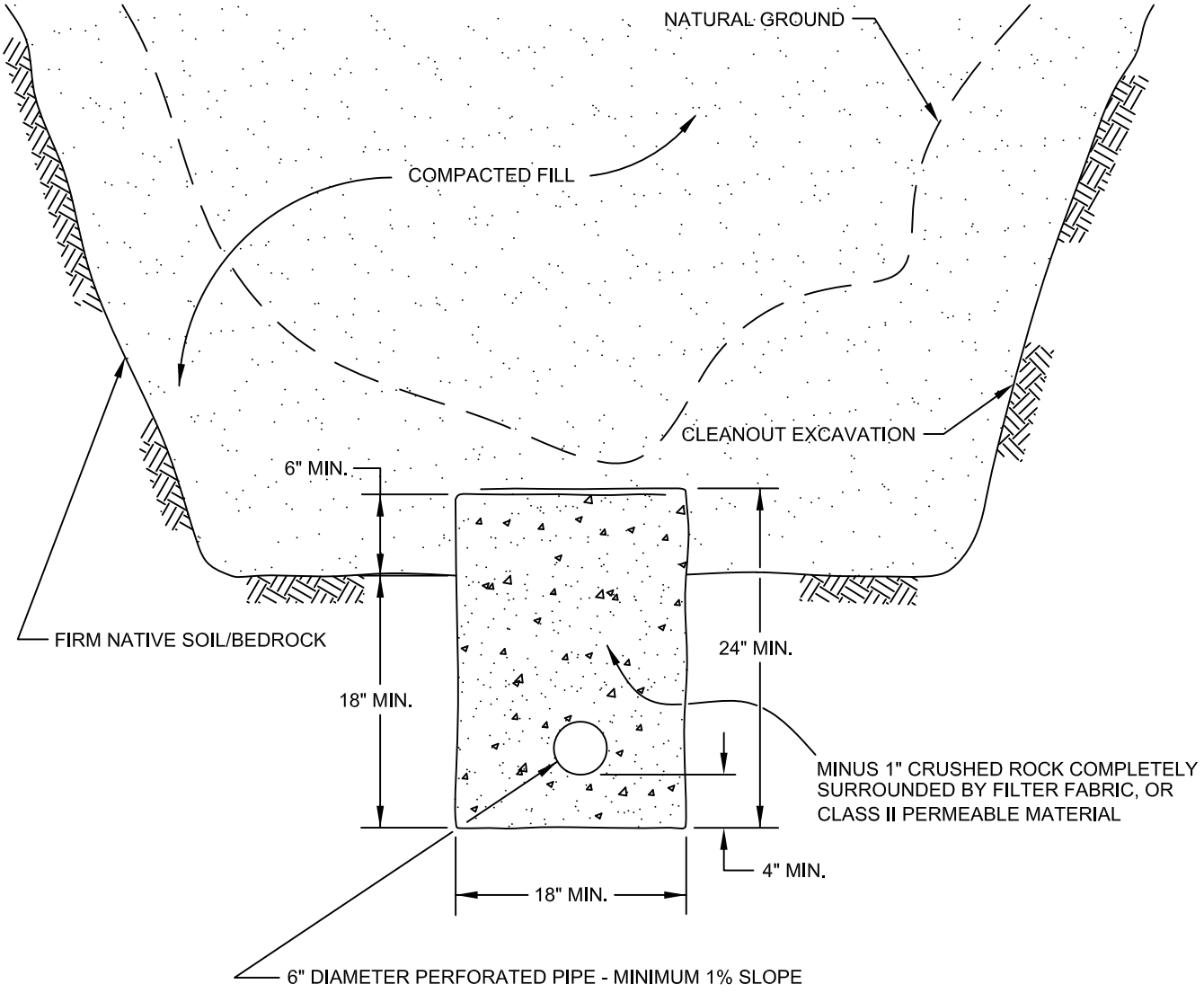
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



PIPE MATERIAL	DEPTH OF FILL OVER SUBDRAIN
ADS (CORRUGATED POLETHYLENE)	8
TRANSITE UNDERDRAIN	20
PVC OR ABS: SDR 35	35
SDR 21	100

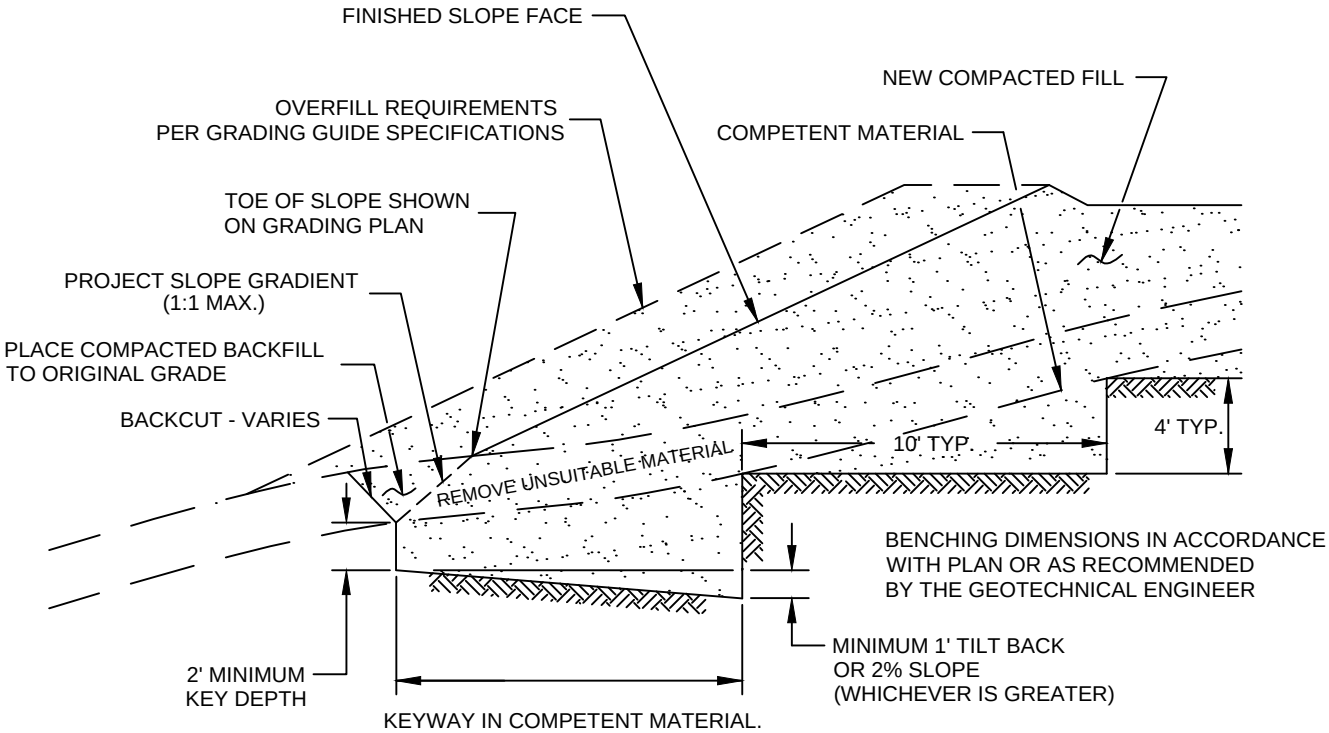
SCHEMATIC ONLY
NOT TO SCALE

CANYON SUBDRAIN DETAIL
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE
DRAWN: JAS
CHKD: GKM

PLATE D-3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



NOTE:
BENCHING SHALL BE REQUIRED WHEN NATURAL SLOPES ARE EQUAL TO OR STEEPER THAN 5:1 OR WHEN RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

FILL ABOVE NATURAL SLOPE DETAIL

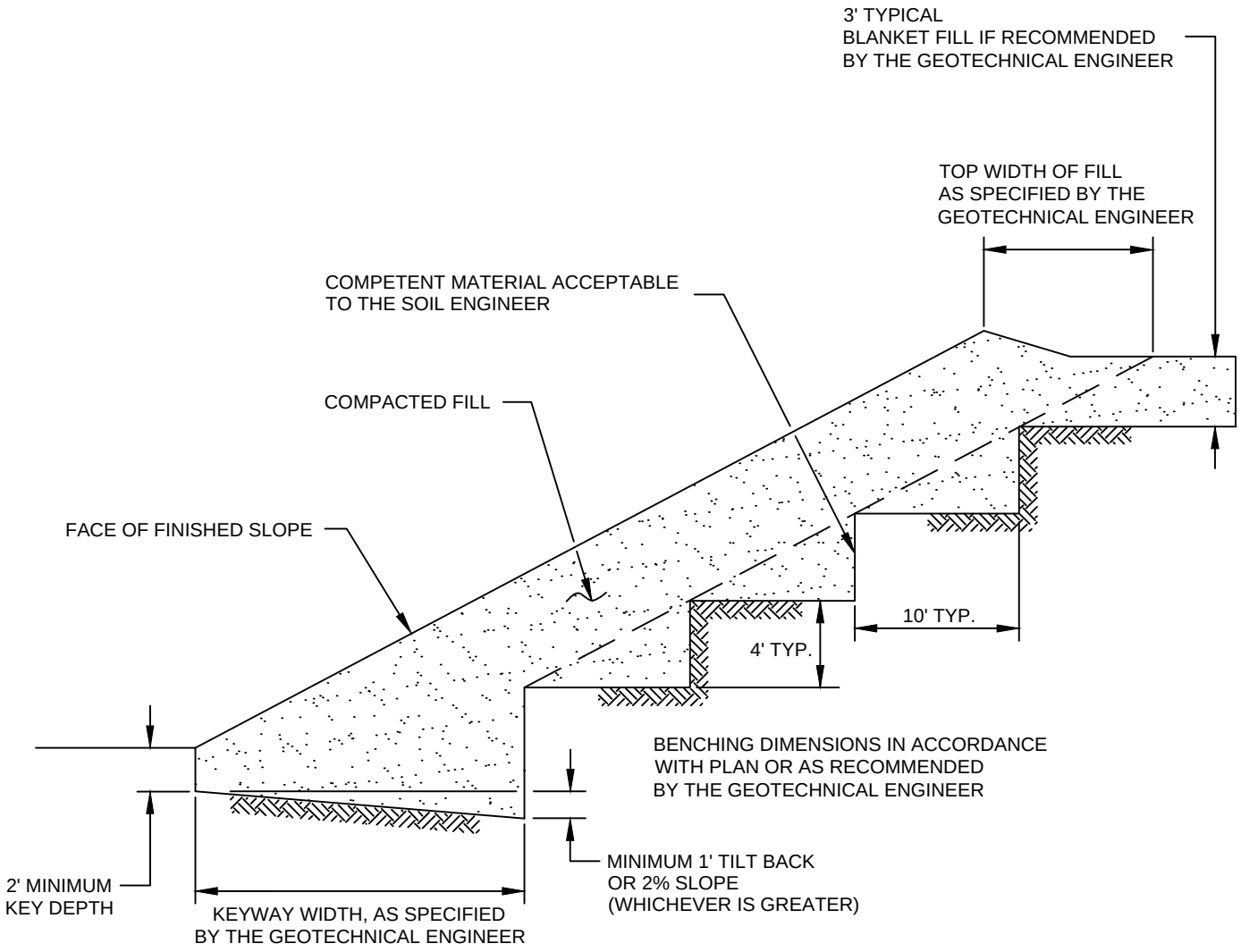
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



STABILIZATION FILL DETAIL

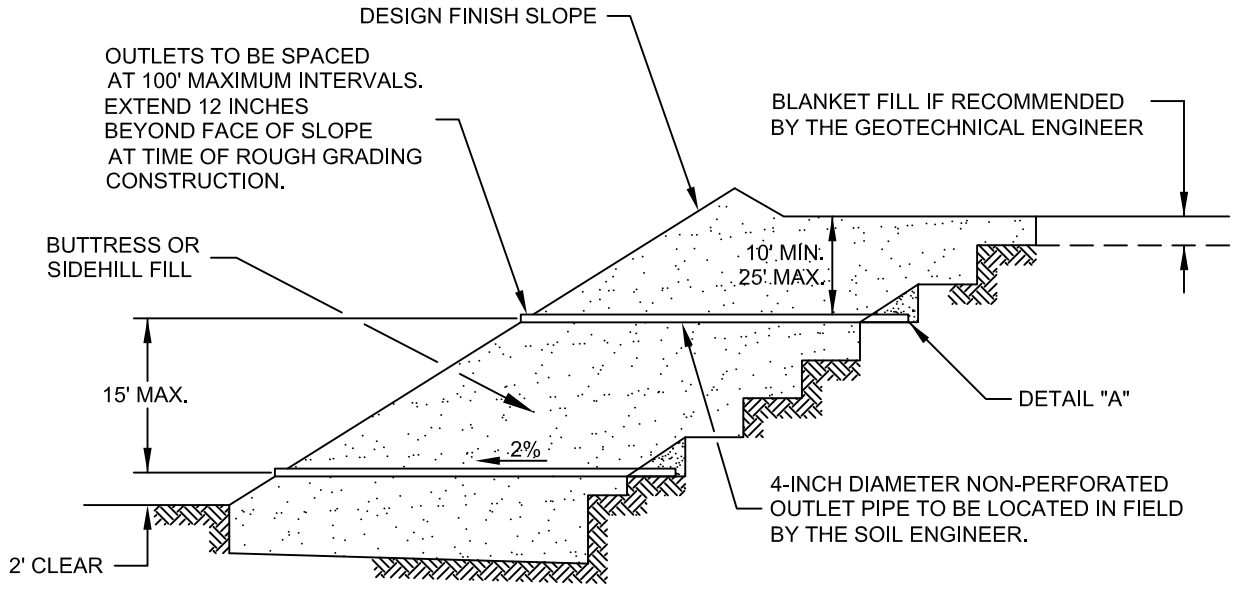
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-5

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



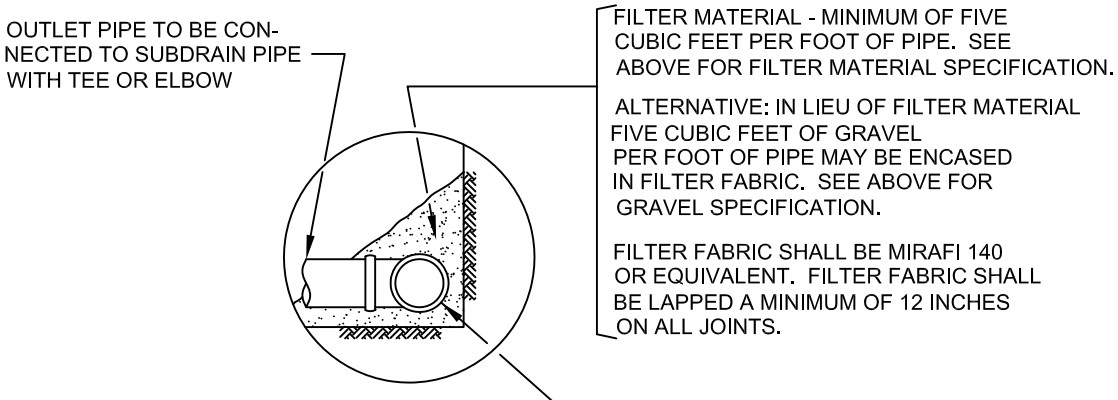
"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50



DETAIL "A"

NOTES:
1. TRENCH FOR OUTLET PIPES TO BE BACKFILLED WITH ON-SITE SOIL.

SLOPE FILL SUBDRAINS

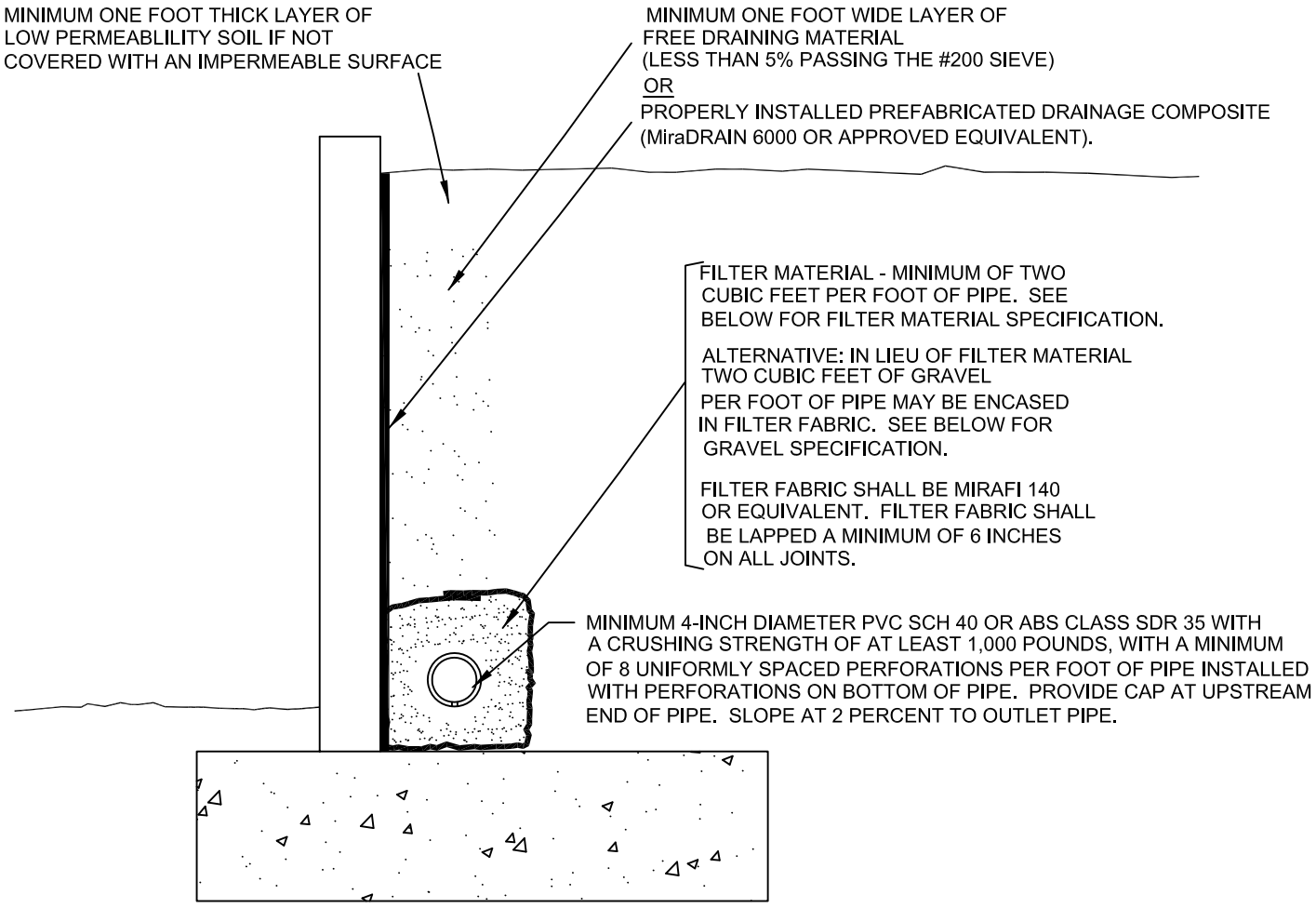
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-6

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50

RETAINING WALL BACKDRAINS

GRADING GUIDE SPECIFICATIONS

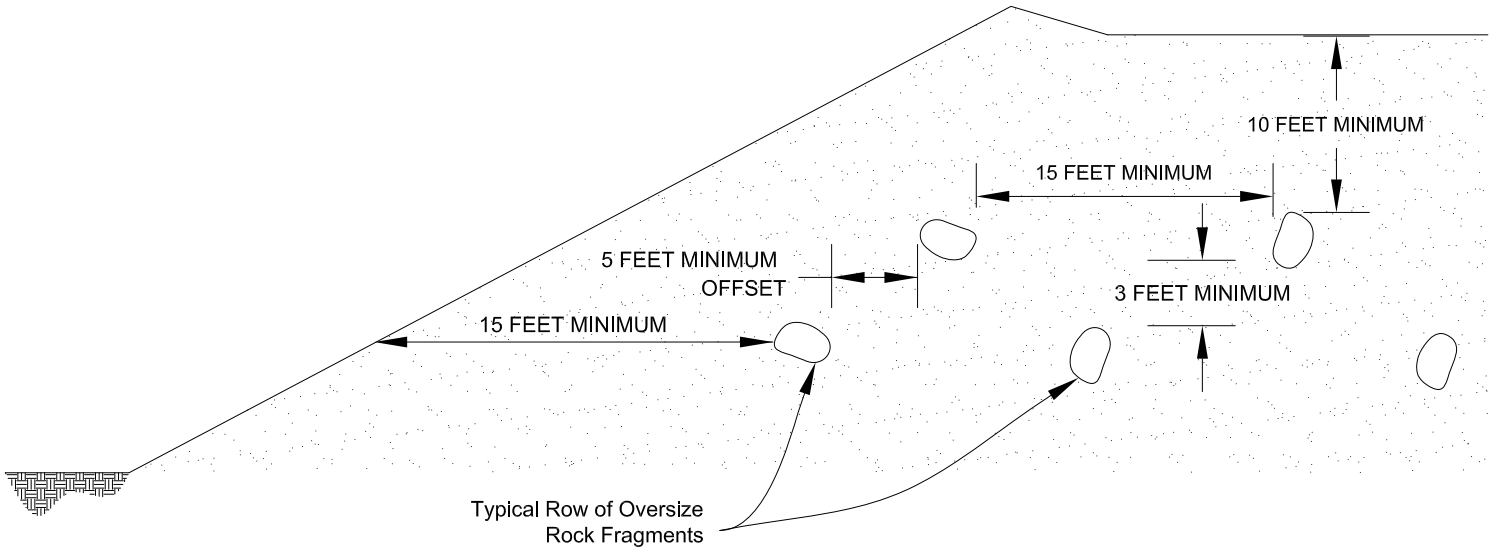
NOT TO SCALE

DRAWN: JAS
CHKD: GKM

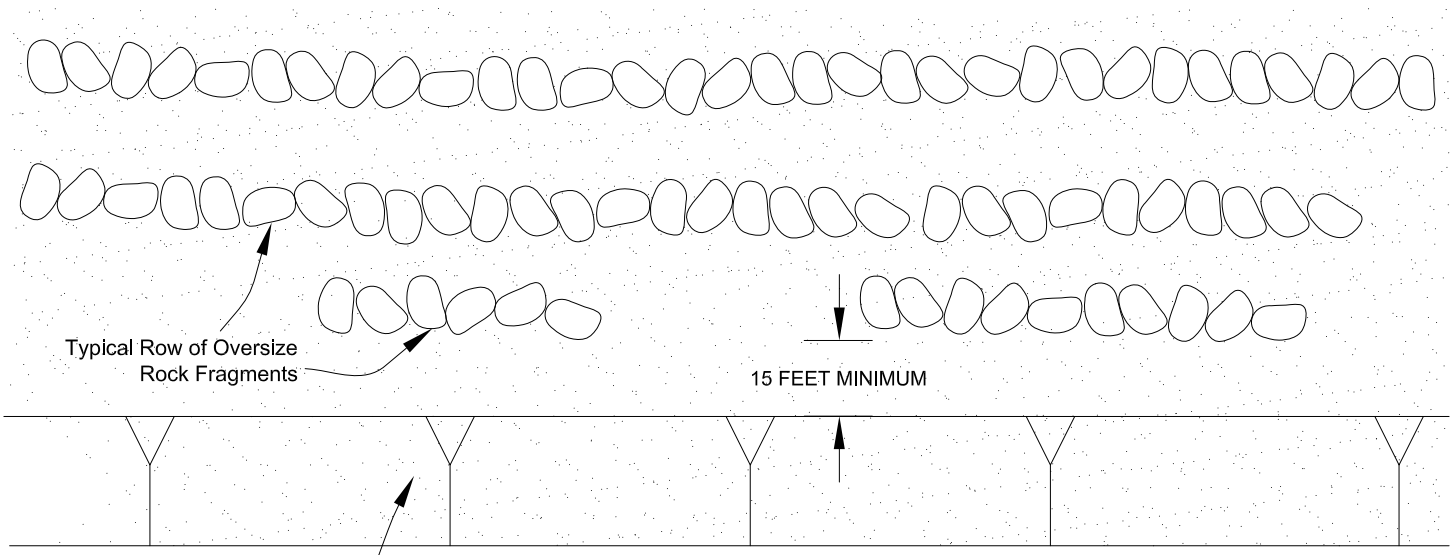
PLATE D-7

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



Section View



Plan View

PLACEMENT OF OVERSIZED MATERIAL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: PM
CHKD: GKM

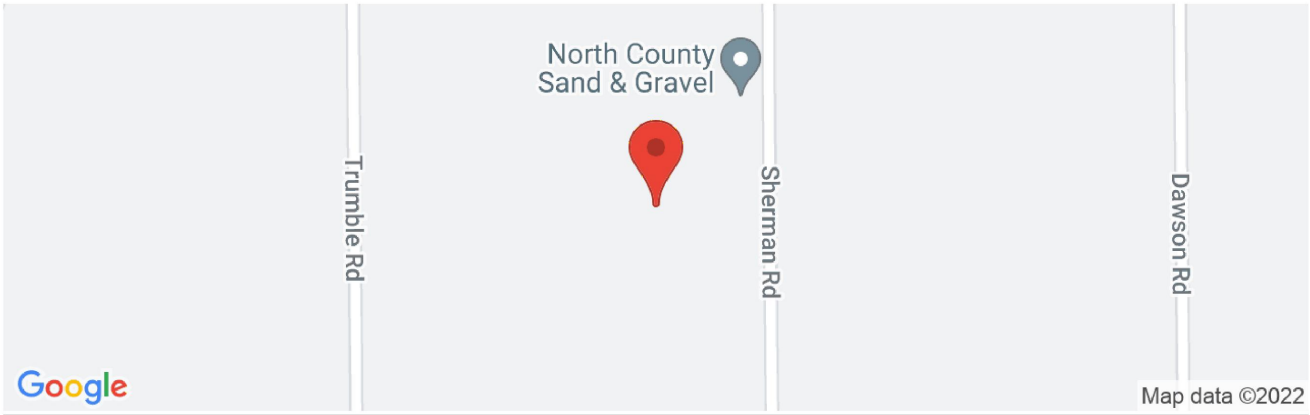
PLATE D-8

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX E

Latitude, Longitude: 33.739615, -117.181617



Date	5/20/2022, 10:57:46 AM
Design Code Reference Document	ASCE7-16
Risk Category	III
Site Class	D - Stiff Soil

Type	Value	Description
S_S	1.417	MCE_R ground motion. (for 0.2 second period)
S_1	0.526	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.417	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	0.945	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.5	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	0.55	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	1.417	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.515	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.526	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.573	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.5	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.935	Mapped value of the risk coefficient at short periods
C_{R1}	0.918	Mapped value of the risk coefficient at a period of 1 s

SOURCE: SEAOC/OSHPD Seismic Design Maps Tool
<https://seismicmaps.org/>

SEISMIC DESIGN PARAMETERS - 2019 CBC
MENIFEE COMMERCE CENTER - PHASE III
MENIFEE, CALIFORNIA

DRAWN: OS
CHKD: RGT
SCG PROJECT 22G173-1
PLATE E-1

SOUTHERN CALIFORNIA GEOTECHNICAL

Appendix F: Greenhouse Gas Emissions Assessment

Ethanac Business Park

GREENHOUSE GAS ANALYSIS

CITY OF MENIFEE

PREPARED BY:

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SEPTEMBER 6, 2024

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LIST OF ABBREVIATED TERMS

%	Percent
°C	Degrees Celsius
°F	Degrees Fahrenheit
(1)	Reference
2017 Scoping Plan	Final 2017 Scoping Plan Update
AB	Assembly Bill
AB 32	Global Warming Solutions Act of 2006
AB 1493	Pavley Fuel Efficiency Standards
AB 1881	California Water Conservation Landscaping Act of 2006
Annex I	Industrialized Nations
APA	Administrative Procedure Act
AQIA	*Ethanac Business Park Air Quality Impact Analysis*
BAU	Business as Usual
C_2F_6	Hexafluoroethane
C_2H_6	Ethane
$C_2H_2F_4$	Tetrafluroethane
$C_2H_4F_2$	Ethylidene Fluoride
CAA	Federal Clean Air Act
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGAPS	California LBNL GHG Analysis of Policies Spreadsheet
CALGreen	California Green Building Standards Code
CalSTA	California State Transportation Agency
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CAS	Climate Action Strategy
CBSC	California Building Standards Commission
CEC	California Energy Commission
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CEQA Guidelines	*2019 CEQA Statute and Guidelines*
CDFA	California Department of Food and Agriculture
CF_4	Tetrafluoromethane

CFC	Chlorofluorocarbons
CFC-113	Trichlorotrifluoroethane
CH_4	Methane
City	City of Menifee
CNRA	California Natural Resources Agency
CNRA 2009	*2009 California Climate Adaptation Strategy*
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
Convention	United Nation's Framework Convention on Climate Change
COP	Conference of the Parties
CPUC	California Public Utilities Commission
CTC	California Transportation Commission
DOF	Department of Finance
DWR	Department of Water Resources
EGU	Electric Generating Units
EMFAC	Emission Factor Model
EPA	Environmental Protection Agency
EV	Electric Vehicle
FED	Functional Equivalent Document
GCC	Global Climate Change
Gg	Gigagram
GHGA	Greenhouse Gas Analysis
GO-Biz	Governor's Office of Business and Economic Development
gpd	Gallons Per Day
gpm	Gallons Per Minute
GWP	Global Warming Potential
H_2O	Water
HFC	Hydrofluorocarbons
HDT	Heavy-Duty Trucks
HFC-23	Fluoroform
HFC-134a	1,1,1,2-tetrafluoroethane
HFC-152a	1,1-difluoroethane
HHDT	Heavy-Heavy-Duty Trucks
hp	Horsepower
IBANK	California Infrastructure and Economic Development Bank
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Planning
ISO	Independent System Operator

ITE	Institute of Transportation Engineers
kWh	Kilowatt Hours
lbs	Pounds
LBNL	Lawrence Berkeley National Laboratory
LCA	Life-Cycle Analysis
LCD	Liquid Crystal Display
LCFS	Low Carbon Fuel Standard or Executive Order S-01-07
LDA	Light-Duty Auto
LDT1/LDT2	Light-Duty Trucks
LEV III	Low-Emission Vehicle
LHDT1/LHDT2	Light-Heavy-Duty Trucks
LULUCF	Land-Use, Land-Use Change and Forestry
MCY	Motorcycles
MD	Medium Duty
MDT	Medium-Duty Trucks
MDV	Medium-Duty Vehicles
MHDT	Medium-Heavy-Duty Trucks
MM	Mitigation Measure
MMR	Mandatory Reporting Rule
$MMTCO_2e$	Million Metric Ton of Carbon Dioxide Equivalent
$MMTCO_2e$/yr.	Million Metric Ton of Carbon Dioxide Equivalent Per Year
mpg	Miles Per Gallon
MPOs	Metropolitan Planning Organizations
MT/yr.	Metric Tons Per Year
$MTCO_2e$	Metric Ton of Carbon Dioxide Equivalent
$MTCO_2e$/yr.	Metric Ton of Carbon Dioxide Equivalent Per Year
MW	Megawatts
MWh	Megawatts Per Hour
MWELO	California Department of Water Resources' Model Water Efficient
N_2O	Nitrous Oxide
NDC	Nationally Determined Contributions
NF_3	Nitrogen Trifluoride
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NO_X	Nitrogen Oxides
Non-Annex I	Developing Nations

NSPS	New Source Performance Standards
OAL	Office of Administrative Law
OPR	Office of Planning and Research
PFC	Perfluorocarbons
ppb	Parts Per Billion
ppm	Parts Per Million
ppt	Parts Per Trillion
Project	Ethanac Business Park
RTP	Regional Transportation Plan
SAFE	Safer Affordable Fuel-Efficient Vehicles Rule
SB	Senate Bill
SB 32	California Global Warming Solutions Act of 2006
SB 375	Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies
SB 1078	Renewable Portfolio Standards
SB 1368	Statewide Retail Provider Emissions Performance Standards
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
Scoping Plan	California Air Resources Board Climate Change Scoping Plan
SCS	Sustainable Communities Strategy
sf	Square Feet
SF_6	Sulfur Hexaflouride
SGC	Strategic Growth Council
SLPS	Short-Lived Climate Pollutant Strategy
SP	Service Population
SR-60	State Route 60
SWCRB	State Water Resources Control Board
TA	*Ethanac Business Park (DPR20-00004) Traffic Analysis*
TDM	Transportation Demand Measures
Title 20	Appliance Energy Efficiency Standards
Title 24	California Building Code
U.N.	United Nations
U.S.	United States
UNFCCC	United Nations' Framework Convention on Climate Change
URBEMIS	Urban Emissions

UTR	Utility Tractors
VFP	Vehicle Fueling Positions
VMT	Vehicle Miles Traveled
WCI	Western Climate Initiative
WRCOG	Western Riverside Council of Governments
WRI	World Resources Institute
ZE/NZE	Zero and Near-Zero Emissions
ZEV	Zero-Emissions Vehicles

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Ethanac Business Park Greenhouse Gas Analysis* (GHGA) is summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines* (*CEQA Guidelines* (1). Table ES-1 shows the findings of significance for potential greenhouse gas (GHG) impacts under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
GHG Impact #1: Would the Project generate GHG emissions either directly or indirectly, that may have a significant impact on the environment?	3.7	*Less Than Significant*	*n/a*
GHG Impact #2: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?	3.7	*Less Than Significant*	*n/a*

ES.2 PROJECT REQUIREMENTS

The Project would be required to comply with regulations imposed by the State of California and the South Coast Air Quality Management District (SCAQMD) aimed at the reduction of air pollutant emissions. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of GHG emissions include:

- Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) (2).
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill [SB] 375) (3).
- Pavley Fuel Efficiency Standards (AB 1493). Establishes fuel efficiency ratings for new vehicles (4).
- California Building Code (Title 24 California Code of Regulations [CCR]). Establishes energy efficiency requirements for new construction (5).
- Appliance Energy Efficiency Standards (Title 20 CCR). Establishes energy efficiency requirements for appliances (6).
- Low Carbon Fuel Standard (LCFS). Requires carbon content of fuel sold in California to be 10 percent (%) less by 2020 (7).
- California Water Conservation in Landscaping Act of 2006 (AB 1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or

equivalent to ensure efficient landscapes in new development and reduced water waste in existing landscapes (8).

- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions (9).
- Renewable Portfolio Standards (SB 1078 – also referred to as RPS). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20% by 2010 and 33% by 2020 (10).
- California Global Warming Solutions Act of 2006 (SB 32). Requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15 (11).
- SCAQMD Rule 2305. The SCAQMD adopted Rule 2305, the Warehouse Indirect Source Rule, on May 7, 2021. Owners and operators associated with warehouses 100,000 square feet (sf) or larger are required to directly reduce nitrogen oxides (NO_X) and particulate matter emissions, or to otherwise facilitate emission and exposure reductions of these pollutants in nearby communities.
- All vehicle operators are required to comply with California Air Resources Board (CARB) Rule 2485 and CARB Rule 2449, which limits nonessential idling of diesel-fueled commercial vehicle engines and diesel-powered off-road equipment to five minutes or less. Prior to issuance of occupancy permits for buildings with loading dock areas, the City shall verify that signs are posted in these areas that inform vehicle and equipment operators about the requirements of these Rules except that such signs shall post a 5-minute idling restriction.

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1 INTRODUCTION

This report presents the results of the GHGA prepared by Urban Crossroads, Inc., for the proposed Ethanac Business Park (Project). The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of GHG impacts as a result of constructing and operating the Project.

1.1 SITE LOCATION

The proposed Project is located south of Ethanac Road, east of Trumble Road, west of Sherman Road, and north of McLaughlin Road in the City of Menifee as shown on Exhibit 1-A.

1.2 PROJECT DESCRIPTION

The Project includes the development of a 264,710-square-foot warehouse building which includes 10,000 square feet of office support space on an 11.47-acre site (see Exhibit 1-B). It is our understanding the proposed Project Planning Application consists of a Plot Plan (PLN23-0171), General Plan Amendment (PLN23-0173) to change the land use for a portion of the Project site from Heavy Industrial to Menifee North Specific Plan, Change of Zone (PLN23-0174) to change zoning for a portion of the Project site from Heavy Industrial to Menifee North Specific Plan, and a Specific Plan Amendment (PLN23-0175) to modify the boundary of the existing Menifee North Specific Plan to include the proposed entire Project site and designate it as Planning Area 2 (Industrial). The proposed Project is anticipated to have an Opening Year of 2026.

In addition, to support the Project development, there will be paving for off-site improvements associated with roadway construction and utility installation which includes widening Sherman Road from Ethanac Road to the southern end of the Project.

EXHIBIT 1-A: LOCATION MAP

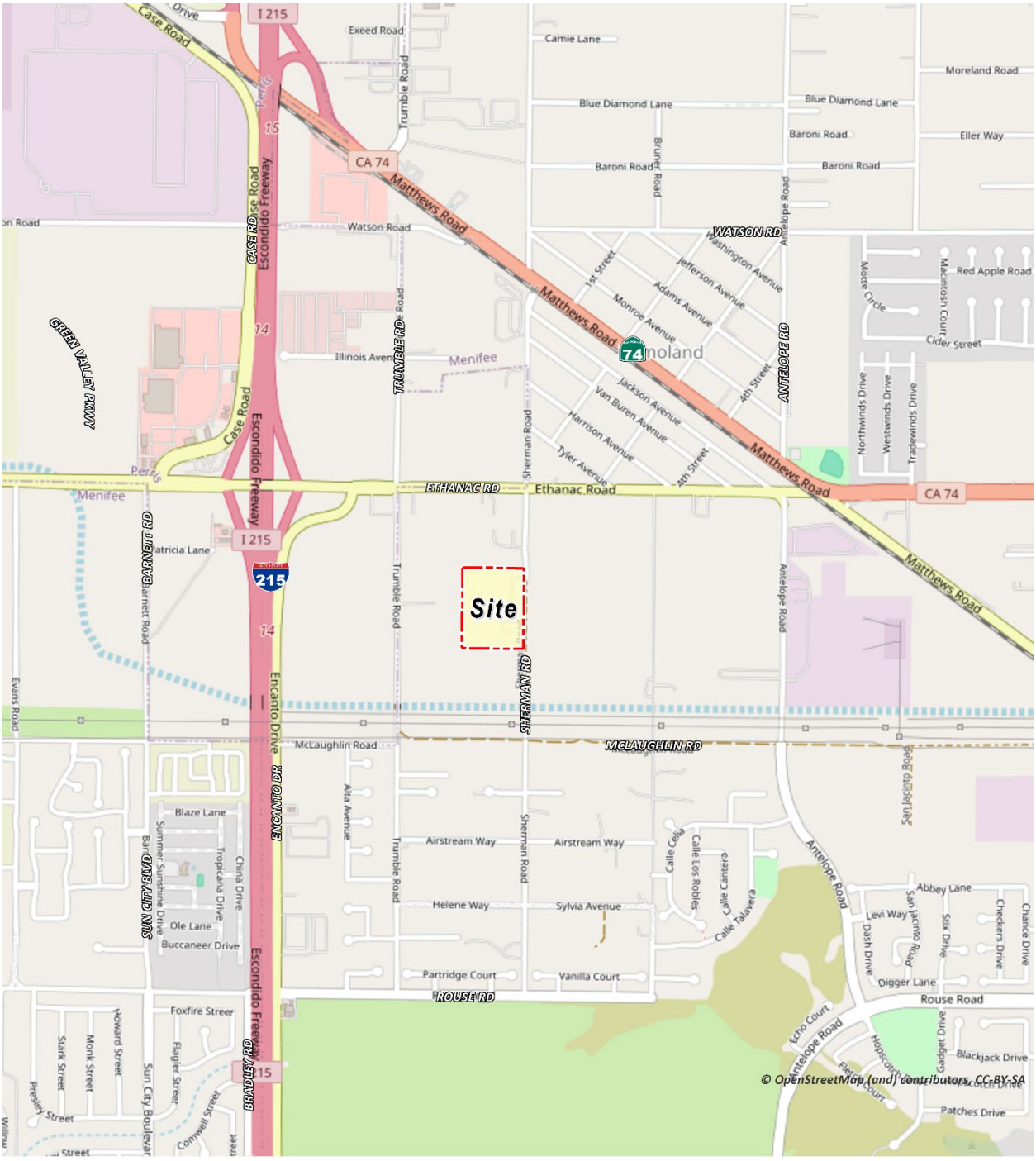
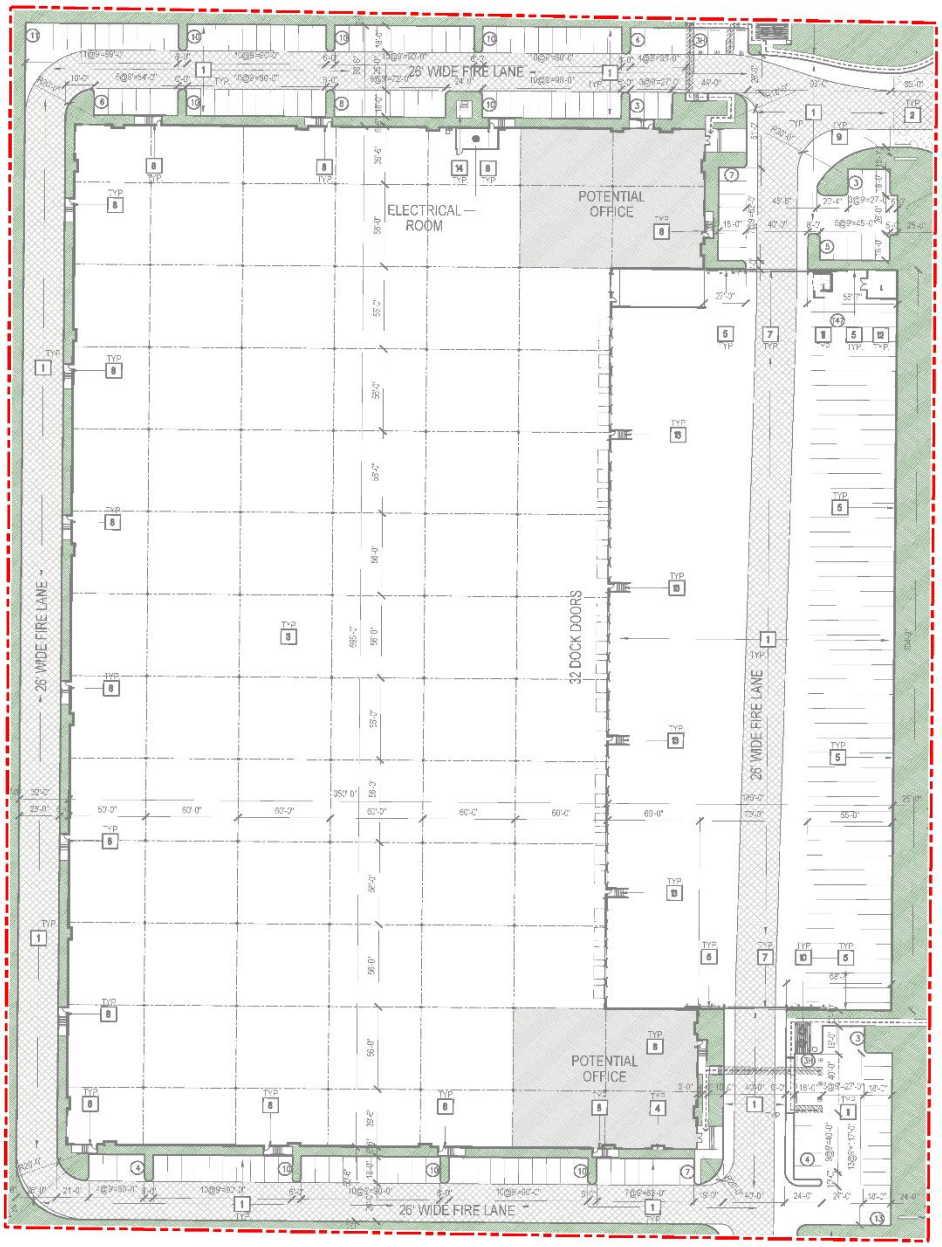


EXHIBIT 1-B: SITE PLAN



N

LEGEND:

Site Boundary

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2 CLIMATE CHANGE SETTING

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE (GCC)

GCC is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in the earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years.

An individual project, like the proposed Project evaluated in this GHGA, cannot generate enough GHG emissions to affect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3 will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GLOBAL CLIMATE CHANGE DEFINED

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation, and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO_2, N_2O, CH_4, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radiative heat from escaping, thus warming the earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages.

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activity. Without the natural GHG effect, the earth's average temperature would be approximately 61 degrees Fahrenheit (°F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

2.3 GHGS

2.3.1 GHGS AND HEALTH EFFECTS

GHGs trap heat in the atmosphere, creating a GHG effect that results in global warming and climate change. Many gases demonstrate these properties as discussed in Table 2-1. For the purposes of this analysis, emissions of CO_2, CH_4, and N_2O were evaluated because these gases are the primary contributors to GCC from development projects. Although there are other substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were

not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases.

TABLE 2-1: GHGS

GHGs	Description	Sources	Health Effects
Water	Water is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere, it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. Climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop would continue is unknown as there are also dynamics that hold the positive feedback loop	The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.	There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

GHGs	Description	Sources	Health Effects
	in check. As an example, when water vapor increases in the atmosphere, more of it would eventually condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the earth's surface and heat it up) (12).		
CO_2	CO_2 is an odorless and colorless GHG. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Left unchecked, the concentration of CO_2 in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (13).	CO_2 is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. CO_2 is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (14).	Outdoor levels of CO_2 are not high enough to result in negative health effects. According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of CO_2 can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of CO_2 in the earth's atmosphere are estimated to be approximately 370 ppm, the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15 minute period (15).

GHGs	Description	Sources	Health Effects
CH_4	CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs.	CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH_4. Other anthropocentric sources include fossil-fuel combustion and biomass burning (16).	CH_4 is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Exposure to elevated levels of CH_4 can cause asphyxiation, loss of consciousness, headache and dizziness, nausea and vomiting, weakness, loss of coordination, and an increased breathing rate.
N_2O	N_2O, also known as laughing gas, is a colorless GHG. Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb).	N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also	N_2O can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (17).

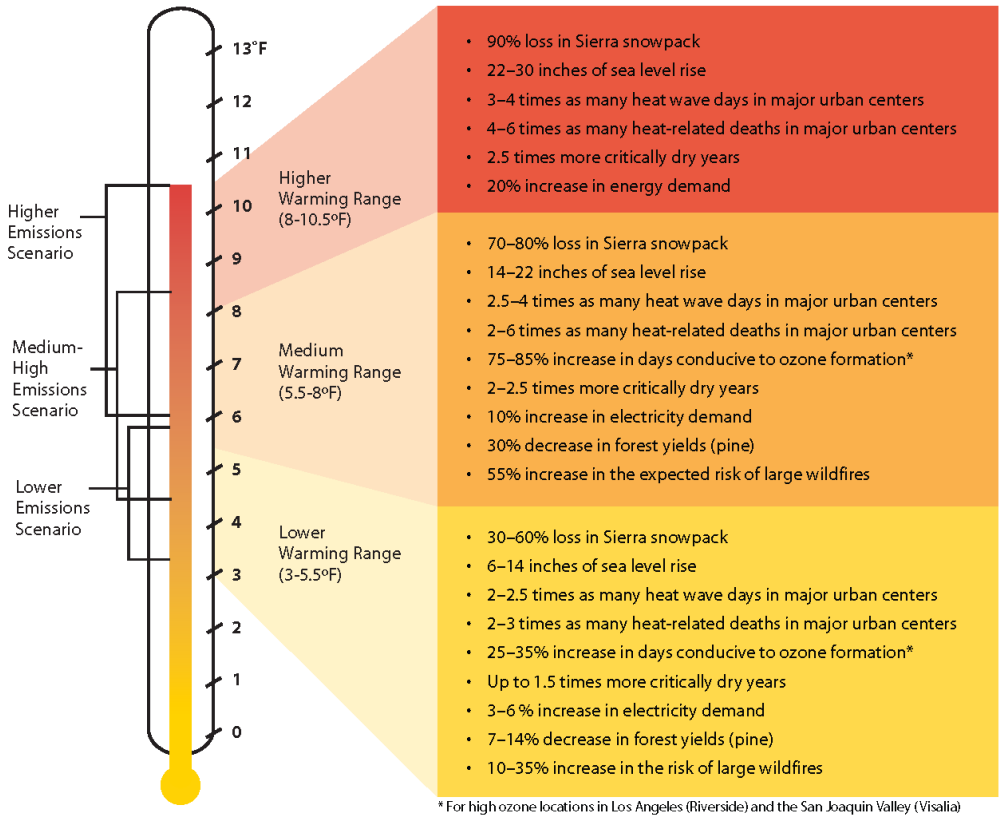
GHGs	Description	Sources	Health Effects
		used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. N_2O can be transported into the stratosphere, be deposited on the earth's surface, and be converted to other compounds by chemical reaction (17).	
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).	CFCs have no natural source but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs would remain in the atmosphere for over 100 years (18).	In confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

GHGs	Description	Sources	Health Effects
HFCs	HFCs are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential (GWP). The HFCs with the largest measured atmospheric abundances are (in order), Fluoroform (HFC-23), 1,1,1,2-tetrafluoroethane (HFC-134a), and 1,1-difluoroethane (HFC-152a). Prior to 1990, the only significant emissions were of HFC-23. HCF-134a emissions are increasing due to its use as a refrigerant.	HFCs are manmade for applications such as automobile air conditioners and refrigerants.	No health effects are known to result from exposure to HFCs.
PFCs	PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above earth's surface, are able to destroy the compounds. Because of this, PFCs have exceptionally long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The EPA estimates that concentrations of CF_4 in the atmosphere are over 70 parts per trillion (ppt).	The two main sources of PFCs are primary aluminum production and semiconductor manufacture.	No health effects are known to result from exposure to PFCs.
SF_6	SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900) (19). The EPA indicates that concentrations in the 1990s were about 4 ppt.	SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.	In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

GHGs	Description	Sources	Health Effects
Nitrogen Trifluoride (NF_3)	NF_3 is a colorless gas with a distinctly moldy odor. The World Resources Institute (WRI) indicates that NF_3 has a 100-year GWP of 17,200 (20).	NF_3 is used in industrial processes and is produced in the manufacturing of semiconductors, Liquid Crystal Display (LCD) panels, types of solar panels, and chemical lasers.	Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis (21).

The potential health effects related directly to the emissions of CO_2, CH_4, and N_2O as they relate to development projects, such as the proposed Project, are still being debated in the scientific community. Their cumulative effects to GCC have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport those higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change would likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (22). Exhibit 2-A presents the potential impacts of global warming (23).

EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT, 2070-2099 (AS COMPARED WITH 1961-1990)



Source: Barbara H. Allen-Diaz. "Climate change affects us all." *University of California, Agriculture and Natural Resources*, 2009.

2.4 GLOBAL WARMING POTENTIAL

GHGs have varying GWP values. GWP of a GHG indicates the amount of warming a gas cause over a given period of time and represents the potential of a gas to trap heat in the atmosphere. CO_2 is utilized as the reference gas for GWP, and thus has a GWP of 1. CO_2 equivalent (CO_2e) is a term used for describing the different GHGs in a common unit. CO_2e signifies the amount of CO_2 which would have the equivalent GWP.

The Intergovernmental Panel on Climate Change (IPCC) is the international body for assessing the science related to climate change. IPCC Assessment Reports cover the full scientific, technical and socio-economic assessment of climate change. The atmospheric lifetime and GWP of selected GHGs are summarized at Table 2-2. As shown in the table below, GWP for the 2nd Assessment range from 1 for CO_2 to 23,900 for SF_6 and GWP for the 6th Assessment Report range from 1 for CO_2 to 25,200 for SF_6 (24).

TABLE 2-2: GWP AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	Atmospheric Lifetime (years)	GWP (100-year time horizon)	
		2nd Assessment Report	6th Assessment Report
CO_2	Multiple	1	1
CH_4	11.8	21	28
N_2O	109	310	273
HFC-23	228	11,700	14,600
HFC-134a	14	1,300	1,526
HFC-152a	1.6	140	164
SF_6	3,200	23,900	25,200

Source: IPCC Second Assessment Report, 1995 and IPCC Sixth Assessment Report, 2022

2.5 GHG EMISSIONS INVENTORIES

2.5.1 GLOBAL

Worldwide anthropogenic GHG emissions are tracked by the IPCC for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Human GHG emissions data for Annex I nations are available through 2020. Based on the latest available data, the sum of these emissions totaled approximately 28,026,643 gigagram (Gg) CO_2e[1] (25) (26) as summarized in Table 2-3.

[1] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2020 data, the United Nations' Framework Convention on Climate Change (UNFCCC) data for the most recent year were used U.N. Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF," The most recent GHG emissions for China and India are from 2014 and 2016, respectively.

2.5.2 UNITED STATES

As noted in Table 2-3, the United States, as a single country, was the number two producer of GHG emissions in 2020.

TABLE 2-3: TOP GHG PRODUCING COUNTRIES AND THE EUROPEAN UNION [2]

Emitting Countries	GHG Emissions (Gg CO_2e)
China	12,300,200
United States	5,981,354
European Union (27-member countries)	3,706,110
India	2,839,420
Russian Federation	2,051,437
Japan	1,148,122
Total	**28,026,643**

2.5.3 STATE OF CALIFORNIA

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls but is still a substantial contributor to the United States (U.S.) emissions inventory total (27). The California Air Resource Board (CARB) compiles GHG inventories for the State of California. Based upon the 2022 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2020 GHG emissions period, California emitted an average 369.2 million metric tons of CO_2e per year ($MMTCO_2e$/yr.) or 369,200 Gg CO_2e (6.17% of the total United States GHG emissions) (28).

2.6 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

2.6.1 PUBLIC HEALTH

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35% under the lower warming range to 75 to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. Based on *Our Changing Climate Assessing the Risks to California by the California Climate Change Center*, large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced (29).

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a

[2] Used http://unfccc.int data for Annex I countries. Consulted the CAIT Climate Data Explorer in https://www.climatewatchdata.org site to reference Non-Annex I countries of China and India.

significant increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

2.6.2 WATER RESOURCES

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90%. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

2.6.3 AGRICULTURE

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25% of the water supply needed. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits, and nuts.

In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

2.6.4 FORESTS AND LANDSCAPES

GCC has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks would not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90% due to decreased precipitation.

Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80% by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of GCC.

2.6.5 RISING SEA LEVELS

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

2.7 REGULATORY SETTING

2.7.1 INTERNATIONAL

Climate change is a global issue involving GHG emissions from all around the world; therefore, countries such as the ones discussed below have made an effort to reduce GHGs.

IPCC

In 1988, the United Nations (U.N.) and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

UNITED NATION'S FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)

On March 21, 1994, the U.S. joined a number of countries around the world in signing the Convention. Under the UNFCCC, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

INTERNATIONAL CLIMATE CHANGE TREATIES

The Kyoto Protocol is an international agreement linked to the UNFCCC. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at an average of 5% against 1990 levels over the five-year period 2008–2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto. No binding agreement was reached in Copenhagen; however, the UN Climate Change Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2 degrees Celsius (°C) above pre-industrial levels, subject to a review in 2015. The Committee held additional meetings in Durban, South Africa in November 2011; Doha, Qatar in November 2012; and Warsaw, Poland in November 2013. The meetings gradually gained consensus among participants on individual climate change issues.

On September 23, 2014, more than 100 Heads of State and Government and leaders from the private sector and civil society met at the Climate Summit in New York hosted by the U.N. At the Summit, heads of government, business and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Parties to the UNFCCC reached a landmark agreement on December 12, 2015, in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a four-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts and undergo international review.

The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st session of the UNFCCC Conference of the Parties (COP) 21. Together, the Paris Agreement and the accompanying COP decision:

- Reaffirm the goal of limiting global temperature increase well below 2°C, while urging efforts to limit the increase to 1.5 degrees;
- Establish binding commitments by all parties to make "nationally determined contributions" (NDCs), and to pursue domestic measures aimed at achieving them;
- Commit all countries to report regularly on their emissions and "progress made in implementing and achieving" their NDCs, and to undergo international review;
- Commit all countries to submit new NDCs every five years, with the clear expectation that they would "represent a progression" beyond previous ones;
- Reaffirm the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries too;
- Extend the current goal of mobilizing $100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extend a mechanism to address "loss and damage" resulting from climate change, which explicitly would not "involve or provide a basis for any liability or compensation;"
- Require parties engaging in international emissions trading to avoid "double counting;" and
- Call for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country's NDC (C2ES 2015a) (30).

Following President Biden's day one executive order, the United States officially rejoined the landmark Paris Agreement on February 19, 2021, positioning the country to once again be part of the global climate solution. Meanwhile, city, state, business, and civic leaders across the country and around the world have been ramping up efforts to drive the clean energy advances needed to meet the goals of the agreement and put the brakes on dangerous climate change.

2.7.2 NATIONAL

Prior to the last decade, there have been no concrete federal regulations of GHGs or major planning for climate change adaptation. The following are actions regarding the federal government, GHGs, and fuel efficiency.

GHG ENDANGERMENT

Prior to the last decade, there have been no concrete federal regulations of GHGs or major planning for climate change adaptation. The following are actions regarding the federal government, GHGs, and fuel efficiency.

GHG ENDANGERMENT

In *Massachusetts v. Environmental Protection Agency* 549 U.S. 497 (2007), decided on April 2, 2007, the United States Supreme Court (Supreme Court) found that four GHGs, including CO_2,

are air pollutants subject to regulation under Section 202(a)(1) of the Clean Air Act (CAA). The Supreme Court held that the EPA Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs— CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below. After a lengthy legal challenge, the Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator's findings (31).

CLEAN VEHICLES

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the U.S. On April 1, 2010, the EPA, and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the U.S.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty (MD) passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon (mpg) if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). In August 2012, the EPA and the NHTSA issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025. The new standards apply to passenger cars, light-duty trucks, and MD passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 mpg if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks (HDT) and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20% reduction in CO_2 emissions and fuel consumption by the 2018 model year.

For HDT and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10% reduction for gasoline vehicles and a 15% reduction for diesel vehicles by the 2018 model year (12 and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10% reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

On April 2, 2018, the EPA signed the Mid-term Evaluation Final Determination, which declared that the MY 2022-2025 GHG standards are not appropriate and should be revised (32). This Final Determination serves to initiate a notice to further consider appropriate standards for MY 2022-2025 light-duty vehicles. On August 2, 2018, the NHTSA in conjunction with the EPA, released a notice of proposed rulemaking, the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule). The SAFE Vehicles Rule was proposed to amend existing Corporate Average Fuel Economy (CAFE) and tailpipe CO_2 standards for passenger cars and light trucks and to establish new standards covering model years 2021 through 2026. As of March 31, 2020, the NHTSA and EPA finalized the SAFE Vehicle Rule which increased stringency of CAFE and CO_2 emissions standards by 1.5% each year through model year 2026 (33). On December 21, 2021, after reviewing all the public comments submitted on NHTSA's April 2021 Notice of Proposed Rulemaking, NHTSA finalizes the CAFE Preemption rulemaking to withdraw its portions of the so-called SAFE I Rule. The final rule concludes that the SAFE I Rule overstepped the agency's legal authority and established overly broad prohibitions that did not account for a variety of important state and local interests. The final rule ensures that the SAFE I Rule will no longer form an improper barrier to states exploring creative solutions to address their local communities' environmental and public health challenges (34).

On March 31, 2022, NHTSA finalized CAFE standards for MY 2024-2026. The standards for passenger cars and light trucks for MYs 2024-2025 were increased at a rate of 8% per year and then increased at a rate of 10% per year for MY 2026 vehicles. NHTSA currently projects that the revised standards would require an industry fleet-wide average of roughly 49 mpg in MY 2026 and would reduce average fuel outlays over the lifetimes of affected vehicles that provide consumers hundreds of dollars in net savings. These standards are directly responsive to the agency's statutory mandate to improve energy conservation and reduce the nation's energy dependence on foreign sources (35).

On June 7, 2024, the NHTSA announced their final rule for CAFÉ and HDPUV standards for model years 2027-2031 corporate average fuel economy standards and model year 2030-2035 Heavy-Duty Pickup Trucks and Vans Vehicle Fuel Efficiency Standards. The final rule establishes standards that would require an industry-wide fleet average of approximately 50.4 miles per gallon (mpg) in MY 2031 for passenger cars and light trucks, and an industry fleet-wide average for HDPUVs of approximately 2.851 gallons per 100 miles in MY 2035. The final CAFE standards increase at a rate of 2 percent per year for passenger cars in MYs 2027-2031 and 2 percent per year for light trucks in model years 2029-2031. The final HDPUV fuel efficiency standards increase at a rate of 10 percent per year in MYs 2030-2032 and 8 percent per year in MYs 2033-2035 (36).

On March 20, 2024, the EPA announced a final rule, multi pollutant emission standards for model year 2027 and later light-duty and medium-duty vehicles which sets new standards to protect and further reduce harmful air pollutant emissions from light and medium duty vehicles starting model year 2027. This rule builds on the existing EPA federal greenhouse gas emissions standards for passenger car and light trucks for 2023 through 2026 model years and leverages advances in clean technology to benefit public health through reducing smog and soot forming pollutants from vehicles, reducing climate pollution, and save drivers money by reducing fuel and maintenance costs. These standards will phase in over model years 2027 through 2032 (37).

On March 29, 2024, the EPA announced a final rule to revise existing standards to reduce greenhouse gas emissions from heavy duty vehicles in model year 2027 and set new and more stringent standards for model years 2028 through 2032. The rule known as "Phase 3 greenhouse gas", builds on previous phase 1 and phase 2 greenhouse gas rulemakings which were set to collectively reduce greenhouse gas emissions from heavy-duty vehicles and engines (38).

On December 20, 2022, the EPA adopted a final rule, "Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards," which sets a more stringent emissions standards to further reduce air pollution, including pollutants that create ozone and particulate matter, from heavy-duty vehicles and engines starting in model year 2027. This final rule is consistent with President Biden's Executive Order, "Strengthening American Leadership in Clean Cars and Trucks" and is the first step in the Clean Trucks Plan. The rule also includes an amendment regarding confidentiality of certain information submitted to the EPA for engines, vehicles and equipment subject to emission standards and regulations that implement air pollutant emissions standards for other sectors (39).

MANDATORY REPORTING OF GHGS

The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of GHGs Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the U.S. and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons per year (MT/yr.) or more of GHG emissions are required to submit annual reports to the EPA.

NEW SOURCE REVIEW

The EPA issued a final rule on May 13, 2010, that establishes thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these CAA permitting programs to limit which facilities would be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

> *"This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the*

> *100 or 250 tons per year levels provided under the CAA, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to GHG sources, starting with the largest GHG emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for GHG emissions until at least April 30, 2016."*

The EPA estimates that facilities responsible for nearly 70% of the national GHG emissions from stationary sources would be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

On February 24, 2014, in the *Utility Air Regulatory Group v. EPA*, 573 U.S. 302 court case, the Supreme Court struck down the tailoring rule for lack of jurisdiction and found that the act does not permit an interpretation requiring a source to obtain a PSD or Title V permit on the sole basis of potential GHG emissions. As such, the EPA lacked authority to "tailor" the Act's unambiguous numerical threshold to accommodate its GHG inclusive interpretation of 100,000 tons per year or more (40).

STANDARDS OF PERFORMANCE FOR GHG EMISSIONS FOR NEW STATIONARY SOURCES: ELECTRIC UTILITY GENERATING UNITS

As required by a settlement agreement, the EPA proposed new performance standards for emissions of CO_2 for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts (MW) would be required to meet an output-based standard of 1,000 pounds (lbs) of CO_2 per MW-hour (MWh), based on the performance of widely used natural gas combined cycle technology. It should be noted that on February 9, 2016, the Supreme Court issued a stay of this regulation pending litigation. Additionally, the current EPA Administrator has also signed a measure to repeal the Clean Power Plan, including the CO_2 standards. The Clean Power Plan was officially repealed on June 19, 2019, when the EPA issued the final Affordable Clean Energy rule (ACE). Under ACE, new state-specific emission guidelines were established that provided existing coal-fired electric utility generating units with achievable standards.

On January 19, 2021, the D.C. Circuit Court of Appeals ruled that the EPA's ACE Rule for GHG emissions from power plants rested on an erroneous interpretation of the CAA that barred EPA from considering measures beyond those that apply at and to an individual source. The court therefore vacated and remanded the ACE Rule and adopted a replacement rule which regulates CO_2 emissions from existing power plants, potentially again considering generation shifting and other measures to more aggressively target power sector emissions.

On July 8, 2024, the EPA approved and finalized multiple actions under section 111 of the CAA addressing greenhouse gas emissions from fossil fuel-fired electric generating units (EGUs). The EPA finalized the following: repeal of the Affordable Clean Energy rule, emission guidelines for

GHG emissions from existing fossil fuel-fired steam generating EGUs, which includes both coal and oil/gas fired steam generating EGUs, revisions for the New Source Performance Standards (NSPS) for GHG emissions from new and reconstructed fossil fuel-fired stationary combustion turbine EGUs and GHG emissions from fossil fuel-fired steam generating units that undertake a large modification, based upon the 8-year review required by the CAA (41).

CAP-AND-TRADE

Cap-and-trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. Successful examples in the U.S. include the Acid Rain Program and the N_2O Budget Trading Program and Clean Air Interstate Rule in the northeast. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap-and-trade.

The Regional GHG Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps CO_2 emissions from power plants, auctions CO_2 emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008 and has retained all participating states as of 2020.

The Western Climate Initiative (WCI) partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15% below 2005 levels by 2020. The partners were originally California, British Columbia, Manitoba, Ontario, and Quebec. However, Manitoba and Ontario are not currently participating. California linked with Quebec's cap-and-trade system January 1, 2014, and joint offset auctions took place in 2015. While the WCI has yet to publish whether it has successfully reached the 2020 emissions goal initiative set in 2007, SB 32 requires that California, a major partner in the WCI, adopt the goal of reducing statewide GHG emissions to 40% below the 1990 level by 2030.

SMARTWAY PROGRAM

The SmartWay Program is a public-private initiative between the EPA, large and small trucking companies, rail carriers, logistics companies, commercial manufacturers, retailers, and other federal and state agencies. Its purpose is to improve fuel efficiency and the environmental performance (reduction of both GHG emissions and air pollution) of the goods movement supply chains. SmartWay is comprised of four components (42):

1. SmartWay Transport Partnership: A partnership in which freight carriers and shippers commit to benchmark operations, track fuel consumption, and improve performance annually.
2. SmartWay Technology Program: A testing, verification, and designation program to help freight companies identify equipment, technologies, and strategies that save fuel and lower emissions.
3. SmartWay Vehicles: A program that ranks light-duty cars and small trucks and identifies superior environmental performers with the SmartWay logo.
4. SmartWay International Interests: Guidance and resources for countries seeking to develop freight sustainability programs modeled after SmartWay.

SmartWay effectively refers to requirements geared towards reducing fuel consumption. Most large trucking fleets driving newer vehicles are compliant with SmartWay design requirements. Moreover, over time, all HDTs would have to comply with the CARB GHG Regulation that is designed with the SmartWay Program in mind, to reduce GHG emissions by making them more fuel-efficient. For instance, in 2015, 53 foot or longer dry vans or refrigerated trailers equipped with a combination of SmartWay-verified low-rolling resistance tires and SmartWay-verified aerodynamic devices would obtain a total of 10% or more fuel savings over traditional trailers.

Through the SmartWay Technology Program, the EPA has evaluated the fuel-saving benefits of various devices through grants, cooperative agreements, emissions, and fuel economy testing, demonstration projects and technical literature review. As a result, the EPA has determined the following types of technologies provide fuel saving and/or emission reducing benefits when used properly in their designed applications, and has verified certain products:

- Idle reduction technologies – less idling of the engine when it is not needed would reduce fuel consumption.
- Aerodynamic technologies minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer.
- Low rolling resistance tires can roll longer without slowing down, thereby reducing the amount of fuel used. Rolling resistance (or rolling friction or rolling drag) is the force resisting the motion when a tire rolls on a surface. The wheel would eventually slow down because of this resistance.
- Retrofit technologies include things such as diesel particulate filters, emissions upgrades (to a higher tier), etc., which would reduce emissions.
- Federal excise tax exemptions.

EXECUTIVE ORDER 13990

On January 20, 2021, Federal agencies were directed to immediately review, and take action to address, Federal regulations promulgated and other actions taken during the last 4 years that conflict with national objectives to improve public health and the environment; ensure access to clean air and water; limit exposure to dangerous chemicals and pesticides; hold polluters accountable, including those who disproportionately harm communities of color and low-income communities; reduce GHG emissions; bolster resilience to the impacts of climate change; restore and expand our national treasures and monuments; and prioritize both environmental justice and employment.

2.7.3 CALIFORNIA

2.7.3.1 LEGISLATIVE ACTIONS TO REDUCE GHGS

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark AB 32 was specifically enacted to address GHG emissions. Other legislation, such as Title 24 and Title 20 energy standards, were originally adopted for other purposes such as energy and water

conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

AB 1881

The Water Conservation in Landscaping Act of 2006 requires local agencies to adopt the updated DWR model ordinance or equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

SB 1368

California SB 1368 adds Sections 8340 and 8341 to the Public Utilities Code (effective January 1, 2007) with the intent "to prevent long-term investments in power plants with GHG emissions in excess of those produced by a combined-cycle natural gas power plant" with the aim of "reducing emissions of GHGs from the state's electricity consumption, not just the state's electricity production." SB 1368 provides a mechanism for reducing the GHG emissions of electricity providers, both in-state and out-of-state, thereby assisting CARB in meeting its mandate under AB 32, the Global Warming Solutions Act of 2006.

AB 32

The California State Legislature enacted AB 32, which required that GHGs emitted in California be reduced to 1990 levels by the year 2020 (this goal has been met[3]). GHGs, as defined under AB 32, include CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6. Since AB 32 was enacted, a seventh chemical, NF_3, has also been added to the list of GHGs. CARB is the state agency charged with monitoring and regulating sources of GHGs. Pursuant to AB 32, CARB adopted regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 states the following:

> *"Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems."*

SB 375

On September 30, 2008, SB 375 was signed by Governor Schwarzenegger. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40% of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy,

[3] Based upon the 2019 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2017 GHG emissions period, California emitted an average 424.1 $MMTCO_2e$ (63). This is less than the 2020 emissions target of 431 $MMTCO_2e$.

California would not be able to achieve the goals of AB 32." SB 375 does the following: it (1) requires metropolitan planning organizations (MPOs) to include sustainable community strategies in their regional transportation plans for reducing GHG emissions; (2) aligns planning for transportation and housing; and (3) creates specified incentives for the implementation of the strategies.

SB 375 requires MPOs to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan (RTP) that guides growth while taking into account the transportation, housing, environmental, and economic needs of the region. SB 375 uses CEQA streamlining as an incentive to encourage residential projects, that help achieve AB 32 goals to reduce GHG emissions. Although SB 375 does not prevent CARB from adopting additional regulations, such actions are not anticipated in the foreseeable future.

Concerning CEQA, SB 375, as codified in Public Resources Code Section 21159.28, states that CEQA findings for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network, if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that CARB accepts as achieving the GHG emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the MMs required by an applicable prior environmental document.

AB 1493 - PAVLEY FUEL EFFICIENCY STANDARDS

The second phase of the implementation for the Pavley bill was incorporated into Amendments to the Low-Emission Vehicle Program (LEV III) or the Advanced Clean Cars (ACC) program. The ACC program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for MY 2017 through 2025. The regulation will reduce GHGs from new cars by 34% from 2016 levels by 2025. The new rules will clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid EV and hydrogen fuel cell cars. The package will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California. On March 14, 2022 EPA reinstated California's authority under the Clean Air Act to implement its own GHG emission standards for cars and light trucks, which other states can also adopt and enforce. With this authority restored, EPA will continue partnering with states to advance the next generation of clean vehicle technologies.

CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SB 350)

In October 2015, the legislature approved, and Governor Jerry Brown signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for EV charging stations. Provisions for a 50% reduction in the use of petroleum statewide were removed from

the Bill because of opposition and concern that it would prevent the Bill's passage. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 45% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target would be achieved through the California Public Utilities Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which would facilitate the growth of renewable energy markets in the western United States.

SB 32

On September 8, 2016, Governor Brown signed SB 32 and its companion bill, AB 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal and provides an intermediate goal to achieving S-3-05, which sets a statewide GHG reduction target of 80% below 1990 levels by 2050. AB 197 creates a legislative committee to oversee regulators to ensure that CARB not only responds to the Governor, but also the Legislature (11).

2017 CARB SCOPING PLAN

In November 2017, CARB released the *Final 2017 Scoping Plan Update* (*2017 Scoping Plan*), which identifies the State's post-2020 reduction strategy. The *2017 Scoping Plan* reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the LCFS, and much cleaner cars, trucks, and freight movement, utilizing cleaner, renewable energy, and strategies to reduce CH_4 emissions from agricultural and other wastes.

The *2017 Scoping Plan* establishes a new emissions limit of 260 $MMTCO_2e$ for the year 2030, which corresponds to a 40% decrease in 1990 levels by 2030 (43).

California's climate strategy would require contributions from all sectors of the economy, including the land base, and would include enhanced focus on zero and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (CH_4, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries would further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources. Major elements of the *2017 Scoping Plan* framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero-emission vehicles (ZEV) buses and trucks.
- LCFS, with an increased stringency (18% by 2030).
- Implementing SB 350, which expands the RPS to 50% RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing CH_4 and HCF emissions by 40% and anthropogenic black carbon emissions by 50% by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20% reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Note, however, that the *2017 Scoping Plan* acknowledges that:

> *"[a]chieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA."*

In addition to the statewide strategies listed above, the *2017 Scoping Plan* also identifies local governments as essential partners in achieving the State's long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 metric tons of CO_2e ($MTCO_2e$) or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidence-based bright-line numeric thresholds—consistent with the *2017 Scoping Plan* and the State's long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and MMs that avoid or minimize project emissions to the degree feasible; or a performance-based metric using a Climate Action Plan (CAP) or other plan to reduce GHG emissions is appropriate.

According to research conducted by the Lawrence Berkeley National Laboratory (LBNL) and supported by CARB, California, under its existing and proposed GHG reduction policies, could achieve the 2030 goals under SB 32. The research utilized a new, validated model known as the California LBNL GHG Analysis of Policies Spreadsheet (CALGAPS), which simulates GHG and criteria pollutant emissions in California from 2010 to 2050 in accordance to existing and future GHG-reducing policies. The CALGAPS model showed that by 2030, emissions could range from 211 to 428 $MTCO_2e$ per year ($MTCO_2e$/yr.), indicating that "even if all modeled policies are not implemented, reductions could be sufficient to reduce emissions 40% below the 1990 level [of

SB 32].” CALGAPS analyzed emissions through 2050 even though it did not generally account for policies that might be put in place after 2030. Although the research indicated that the emissions would not meet the State’s 80% reduction goal by 2050, various combinations of policies could allow California’s cumulative emissions to remain very low through 2050 (44) (45).

CAP-AND-TRADE PROGRAM

The *2017 Scoping Plan* identifies a Cap-and-Trade Program as one of the key strategies for California to reduce GHG emissions. According to CARB, a cap-and-trade program would help put California on the path to meet its goal of achieving a 40% reduction in GHG emissions from 1990 levels by 2030. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established, and facilities subject to the cap would be able to trade permits to emit GHGs within the overall limit.

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. The Cap-and-Trade Program is designed to reduce GHG emissions from regulated entities by more than 16% between 2013 and 2020, and by an additional 40% by 2030. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and would decline over time, achieving GHG emission reductions throughout the program’s duration.

Covered entities that emit more than 25,000 $MTCO_2e$/yr. must comply with the Cap-and-Trade Program. Triggering of the 25,000 $MTCO_2e$/yr. “inclusion threshold” is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of GHG Emissions (Mandatory Reporting Rule or “MRR”).

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits. Each covered entity with a compliance obligation is required to surrender “compliance instruments” for each $MTCO_2e$ of GHG they emit. There also are requirements to surrender compliance instruments covering 30% of the prior year’s compliance obligation by November of each year (46).

The Cap-and-Trade Program provides a firm cap, which provides the highest certainty of achieving the 2030 target. An inherent feature of the Cap-and-Trade program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. As summarized by CARB in the *First Update to the Climate Change Scoping Plan*:

> *“The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG*

> *emissions from other covered entities. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative."* (47)

The Cap-and-Trade Program covers approximately 80% of California's GHG emissions (43). The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period. The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported.

2022 CARB SCOPING PLAN

On December 15, 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) (48). The 2022 Scoping Plan builds on the 2017 Scoping Plan as well as the requirements set forth by AB 1279, which directs the state to become carbon neutral no later than 2045. To achieve this statutory objective, the 2022 Scoping Plan lays out how California can reduce GHG emissions by 85% below 1990 levels and achieve carbon neutrality by 2045. The Scoping Plan scenario to do this is to "deploy a broad portfolio of existing and emerging fossil fuel alternatives and clean technologies, and align with statutes, Executive Orders, Board direction, and direction from the governor." The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy (CAP) consistent with *CEQA Guidelines* section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation - the regulations that will impact this sector are adopted and enforced by CARB on vehicle manufacturers and outside the jurisdiction and control of local governments. As stated in the Plan's executive summary:

> "The major element of this unprecedented transformation is the aggressive reduction of fossil fuels wherever they are currently used in California, building on and accelerating carbon reduction programs that have been in place for a decade and a half. That means rapidly moving to zero-emission transportation; electrifying the cars, buses, trains, and trucks that now constitute California's single largest source of planet-warming pollution."
>
> "[A]pproval of this plan catalyzes a number of efforts, including the development of new regulations as well as amendments to strengthen regulations and programs already in place, not just at CARB but across state agencies."

Under the 2022 Scoping Plan, the State will lead efforts to meet the 2045 carbon neutrality goal through implementation of the following objectives:

- Reimagine roadway projects that increase VMT in a way that meets community needs and reduces the need to drive.

- Double local transit capacity and service frequencies by 2030.
- Complete the High-Speed Rail (HSR) System and other elements of the intercity rail network by 2040.
- Expand and complete planned networks of high-quality active transportation infrastructure.
- Increase availability and affordability of bikes, e-bikes, scooters, and other alternatives to light-duty vehicles, prioritizing needs of underserved communities.
- Shift revenue generation for transportation projects away from the gas tax into more durable sources by 2030.
- Authorize and implement roadway pricing strategies and reallocate revenues to equitably improve transit, bicycling, and other sustainable transportation choices.
- Prioritize addressing key transit bottlenecks and other infrastructure investments to improve transit operational efficiency over investments that increase VMT.
- Develop and implement a statewide transportation demand management (TDM) framework with VMT mitigation requirements for large employers and large developments.
- Prevent uncontrolled growth of autonomous vehicle (AV) VMT, particularly zero-passenger miles.
- Channel new mobility services towards pooled use models, transit complementarity, and lower VMT outcomes.
- Establish an integrated statewide system for trip planning, booking, payment, and user accounts that enables efficient and equitable multimodal systems.
- Provide financial support for low-income and disadvantaged Californians' use of transit and new mobility services.
- Expand universal design features for new mobility services.
- Accelerate infill development in existing transportation-efficient places and deploy strategic resources to create more transportation-efficient locations.
- Encourage alignment in land use, housing, transportation, and conservation planning in adopted regional plans (RTP/SCS and RHNA) and local plans (e.g., general plans, zoning, and local transportation plans).
- Accelerate production of affordable housing in forms and locations that reduce VMT and affirmatively further fair housing policy objectives.
- Reduce or eliminate parking requirements (and/or enact parking maximums, as appropriate) and promote redevelopment of excess parking, especially in infill locations.
- Preserve and protect existing affordable housing stock and protect existing residents and businesses from displacement and climate risk.

Included in the 2022 Scoping Plan is a set of Local Actions (Appendix D to the 2022 Scoping Plan) aimed at providing local jurisdictions with tools to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on Residential and Mixed-Use Projects, in fact CARB states in Appendix D (page 4): "…focuses primarily on climate action plans

(CAPs) and local authority over new residential development. It does not address other land use types (e.g., industrial) or air permitting."

Additionally on Page 21 in Appendix D, CARB states: "The recommendations outlined in this section apply only to residential and mixed-use development project types. California currently faces both a housing crisis and a climate crisis, which necessitates prioritizing recommendations for residential projects to address the housing crisis in a manner that simultaneously supports the State's GHG and regional air quality goals. CARB plans to continue to explore new approaches for other land use types in the future." As such, it would be inappropriate to apply the requirements contained in Appendix D of the 2022 Scoping Plan to any land use types other than residential or mixed-use residential development.

2.7.3.2 EXECUTIVE ORDERS RELATED TO GHG EMISSIONS

California's Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, they set the tone for the state and guide the actions of state agencies.

EXECUTIVE ORDER S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for GHG emissions:

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

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that would stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

EXECUTIVE ORDER S-01-07 (LCFS)

Governor Schwarzenegger signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020. CARB adopted the LCFS on April 23, 2009.

After a series of legal changes, in order to address the Court ruling, CARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-carbon intensity fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. On November 16, 2015, the Office of Administrative Law (OAL) approved the Final Rulemaking Package. The new LCFS regulation became effective on January 1, 2016.

In 2018, CARB approved amendments to the regulation, which included strengthening the carbon intensity benchmarks through 2030 in compliance with the SB 32 GHG emissions reduction target for 2030. The amendments included crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector (49).

EXECUTIVE ORDER S-13-08

Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the Order, the *2009 California Climate Adaptation Strategy* (*CNRA 2009*) was adopted, which is the "…first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying, and exploring strategies to adapt to climate change, and specifying a direction for future research.

EXECUTIVE ORDER B-30-15

On April 29, 2015, Governor Brown issued an executive order to establish a California GHG reduction target of 40% below 1990 levels by 2030. The Governor's executive order aligned California's GHG reduction targets with those of leading international governments ahead of the U.N. Climate Change Conference in Paris late 2015. The Order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40% below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80% below 1990 levels by 2050 and directs CARB to update the *2017 Scoping Plan* to express the 2030 target in terms of $MMTCO_2e$. The Order also requires the state's climate adaptation plan to be updated every three years, and for the State to continue its climate change research program, among other provisions. As with Executive Order S-3-05, this Order is not legally enforceable to local governments and the private sector. Legislation that would update AB 32 to make post 2020 targets and requirements a mandate is in process in the State Legislature.

EXECUTIVE ORDER B-55-18 AND SB 100

SB 100 and Executive Order B-55-18 were signed by Governor Brown on September 10, 2018. Under the existing RPS, 25% of retail sales of electricity are required to be from renewable sources by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. SB 100 raises California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours (kWh) of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural

Resources Agency (CNRA), California EPA (CalEPA), the California Department of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

2.7.3.3 CALIFORNIA REGULATIONS AND BUILDING CODES

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

TITLE 20 CCR SECTIONS 1601 ET SEQ. – APPLIANCE EFFICIENCY REGULATIONS

The Appliance Efficiency Regulations regulate the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles (RV) or other mobile equipment (CEC 2012).

TITLE 24 CCR PART 6 – CALIFORNIA ENERGY CODE

The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods.

TITLE 24 CCR PART 11 – CALIFORNIA GREEN BUILDING STANDARDS CODE

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide $1.5 billion in consumer benefits and reduce GHG emissions by 10 million metric tons (50). The Project would be required to comply with the applicable standards in place at the time plan check submittals are made. These require, among other items (51):

NONRESIDENTIAL MANDATORY MEASURES

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
    - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1).
    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor- mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
    - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).

  - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).

- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is projected to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

CARB REFRIGERANT MANAGEMENT PROGRAM

CARB adopted a regulation in 2009 to reduce refrigerant GHG emissions from stationary sources through refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale, and disposal. The regulation is set forth in sections 95380 to 95398 of Title 17, CCR. The rules implementing the regulation establish a limit on statewide GHG emissions from stationary facilities with refrigeration systems with more than 50 pounds of a high GWP refrigerant. The refrigerant management program is designed to (1) reduce emissions of high-GWP GHG refrigerants from leaky stationary, non-residential refrigeration equipment; (2) reduce emissions from the installation and servicing of refrigeration and air-conditioning appliances using high-GWP refrigerants; and (3) verify GHG emission reductions.

TRACTOR-TRAILER GHG REGULATION

The tractors and trailers subject to this regulation must either use EPA SmartWay certified tractors and trailers or retrofit their existing fleet with SmartWay verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the HD tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low rolling resistance tires. Sleeper cab tractors MY 2011 and later must be SmartWay certified. All other tractors must use SmartWay verified low rolling resistance tires. There are also requirements for trailers to have low rolling resistance tires and aerodynamic devices.

PHASE I AND 2 HEAVY-DUTY VEHICLE GHG STANDARDS

In September 2011, CARB adopted a regulation for GHG emissions from HDTs and engines sold in California. It establishes GHG emission limits on truck and engine manufacturers and harmonizes with the EPA rule for new trucks and engines nationally. Existing HD vehicle regulations in California include engine criteria emission standards, tractor-trailer GHG requirements to implement SmartWay strategies (i.e., the Heavy-Duty Tractor-Trailer GHG Regulation), and in-use fleet retrofit requirements such as the Truck and Bus Regulation. The EPA rule has compliance requirements for new compression and spark ignition engines, as well as trucks from Class 2b through Class 8. Compliance requirements began with MY 2014 with stringency levels increasing through MY 2018. The rule organizes truck compliance into three groupings, which include a) HD pickups and vans; b) vocational vehicles; and c) combination tractors. The EPA rule does not regulate trailers.

CARB staff has worked jointly with the EPA and the NHTSA on the next phase of federal GHG emission standards for medium-duty trucks (MDT) and HDT vehicles, called federal Phase 2. The federal Phase 2 standards were built on the improvements in engine and vehicle efficiency required by the Phase 1 emission standards and represent a significant opportunity to achieve further GHG reductions for 2018 and later MY HDT vehicles, including trailers.

On March 29, 2024, the EPA announced a final rule to revise existing standards to reduce greenhouse gas emissions from heavy duty vehicles in model year 2027 and set new and more stringent standards for model years 2028 through 2032. The rule known as "Phase 3 greenhouse gas", builds on previous phase 1 and phase 2 greenhouse gas rulemakings which were set to collectively reduce greenhouse gas emissions from heavy-duty vehicles and engines (38).

SB 97 AND THE CEQA GUIDELINES UPDATE

Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research (OPR) shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the OPR pursuant to subdivision (a)."

In 2012, Public Resources Code Section 21083.05 was amended to state:

> *"The Office of Planning and Research and the Natural Resources Agency shall periodically update the guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption, to incorporate new information or criteria established by the State Air Resources Board pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code."*

On December 28, 2018, the Natural Resources Agency announced the OAL approved the amendments to the *CEQA Guidelines* for implementing CEQA. The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing *CEQA Guidelines* to reference climate change.

Section 15064.4 was added to the *CEQA Guidelines* and states that in determining the significance of a project's GHG emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively insignificant compared to statewide, national, or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. Additionally, a lead agency may use a model or methodology to estimate GHG emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use (52).

2.7.4 REGIONAL

The Project is within the SCAB, which is under the jurisdiction of the SCAQMD.

SCAQMD

SCAQMD is the agency responsible for air quality planning and regulation in the SCAB. The SCAQMD addresses the impacts to climate change of projects subject to SCAQMD permit as a lead agency if they are the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for the project. The SCAQMD acts as an expert commenting agency for impacts to air quality. This expertise carries over to GHG emissions, so the agency helps local land use agencies through the development of models and emission thresholds that can be used to address GHG emissions.

In 2008, SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the SCAB. The Working Group developed several different options that are contained in the SCAQMD Draft Guidance Document – Interim CEQA GHG Significance Threshold, which could be applied by lead agencies. The working group has not provided additional guidance since release of the interim guidance in 2008. The SCAQMD Board has not approved the thresholds; however, the Guidance Document provides substantial evidence supporting the approaches to significance of GHG emissions that can be considered by the lead agency in adopting its own threshold. The current interim thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.

- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:
    - Residential and commercial land use: 3,000 $MTCO_2e$/yr
    - Industrial land use: 10,000 $MTCO_2e$/yr
    - Based on land use type: residential: 3,500 $MTCO_2e$/yr; commercial: 1,400 $MTCO_2e$/yr; or mixed use: 3,000 $MTCO_2e$/yr
- Tier 4 has the following options:
    - Option 1: Reduce Business-as-Usual (BAU) emissions by a certain percentage; this percentage is currently undefined.
    - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
    - Option 3: 2020 target for service populations (SP), which includes residents and employees: 4.8 $MTCO_2e$ per SP per year for projects and 6.6 $MTCO_2e$ per SP per year for plans;
    - Option 3, 2035 target: 3.0 $MTCO_2e$ per SP per year for projects and 4.1 $MTCO_2e$ per SP per year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD's interim thresholds used the Executive Order S-3-05-year 2050 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO_2 concentrations at 450 ppm, thus stabilizing global climate.

SCAQMD only has authority over GHG emissions from development projects that include air quality permits. At this time, it is unknown if the Project would include stationary sources of emissions subject to SCAQMD permits. Notwithstanding, if the Project requires a stationary permit, it would be subject to the applicable SCAQMD regulations.

SCAQMD Regulation XXVII, amended in 2010, includes the following rules:

- Rule 2700 defines terms and post global warming potentials.
- Rule 2701, SoCal Climate Solutions Exchange, establishes a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG emission reductions in the SCAQMD.
- Rule 2702, GHG Reduction Program created a program to produce GHG emission reductions within the SCAQMD. The SCAQMD would fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

SCAQMD RULE 2305 & 316

Rule 2305, Warehouse Indirect Source Rule, which includes the Warehouse Actions and Investments to Reduce Emissions Program (WAIRE), and Rule 316, Fees for Rule 2305, were

adopted in 2021. Rule 2305 establishes for the first time a regulatory program designed to reduce air pollution (and indirect GHG emissions) caused by warehouse-related activities and is focused on emissions from vehicles that service large warehouses. Rule 316 establishes a fee system to support the Rule 2305 program on an ongoing basis. Rules 2305 and 316 apply to operators and owners of existing and new warehouses with floor space greater than or equal to 100,000-sf within a single building (i.e., large warehouses). Rules 2305 and 316 require such operators and owners to annually take actions with respect to their warehouses that either reduce emissions regionally and locally or facilitate emission reductions. Specifically, owners and operators must "earn" a specific number of WAIRE Points. However, warehouse owners are only required to earn WAIRE Points if they are also a warehouse operator. If a warehouse owner is not an operator, they are not required to earn WAIRE Points even if the operator in their warehouse does not earn the required number of WAIRE Points. Warehouse owners are only required to submit a Warehouse Operations Notification to the SCAQMD.

The number of WAIRE Points required for a specific operator is based on the intensity of operations (i.e., number of truck trips and type of trucks) at each of their warehouses every year. The required points are known as the WAIRE Points Compliance Obligation (WPCO). The WPCO is calculated based on a 12-month survey of truck trips entering or exiting the site, the truck data is weighted based on the types of trucks, and activity is projected for the next year. Thus, the WAIRE Points represent mitigation for the prior year's emissions based on points earned in subsequent years.

WAIRE Points are earned by implementing a menu of items including purchasing/renting/leasing near-zero (NZE) and zero emission (ZE) yard equipment and/or trucks, installing on-site ZE fueling stations, and proving on-site solar PV systems that are intended to offset or reduce warehouse emissions. Owners and operators may also implement custom WAIRE plans for individual facilities, subject to SCAQMD approval; or pay mitigation fees to have the SCAQMD implement measures within the SCAB. Owners and operators that over-comply may transfer excess WAIRE Points earned in one year to a subsequent year or may transfer WAIRE points to another site within their control. WAIRE Points cannot be transferred to other operators and expire after 3 years. Rule 2305 also requires reporting information about facility operations and recordkeeping. Rule 316 is the companion rule to Rule 2305 and establishes the administrative fees that Rule 2305 warehouse owners and operators must pay to support SCAQMD compliance activities.

While the Project proponent may be defined as a warehouse owner and would submit a Warehouse Operation Notice(s), as required, the Project proponent does not intend to be the warehouse operator and has no knowledge of the future operations. Thus, the specific information required by Rule 2305 for calculating the WPCO is unavailable, and the necessary number of points is unknown. Finally, the WAIRE points expire after 3 years and are based on actions of future operators and are thus temporary and could not be calculated. Therefore, even though the WAIRE program will reduce emissions for warehouse activities in the region, no emission reductions from the WAIRE Program can be calculated for this analysis.

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3 PROJECT GHG IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will result in a significant GHG impact. The significance of these potential impacts is described in the following sections.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related GHG impacts are taken from the Initial Study Checklist in Appendix G of the State *CEQA Guidelines* (14 CCR of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to GHG if it would (1):

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

3.2.1 DISCUSSION ON ESTABLISHMENT OF SIGNIFICANCE THRESHOLDS

The City of Menifee has not adopted a project-specific significance threshold and instead relies on SCAQMD's recommended Tier 3 screening threshold of 10,000 $MTCO_2e$/yr. for industrial stationary source emissions to determine the significance of a project's GHG emissions. However, the City has determined that the SCAQMD's draft threshold of 3,000 $MTCO_2e$/yr. is more conservative and appropriate for industrial and warehouse land use development projects.

The 3,000 $MTCO_2e$ per year threshold is based on a 90% emission "capture" rate methodology. Prior to its use by the SCAQMD, the 90% emissions capture approach was one of the options suggested by the California Air Pollution Control Officers Association (CAPCOA) in their *CEQA & Climate Change* white paper (2008). A 90% emission capture rate means that unmitigated GHG emissions from the top 90% of all GHG-producing projects within a geographic area – the SCAB in this instance – would be subject to a detailed analysis of potential environmental impacts from GHG emissions, while the bottom 10% of all GHG-producing projects would be excluded from detailed analysis. A GHG significance threshold based on a 90% emission capture rate is appropriate to address the long-term adverse impacts associated with global climate change because medium and large projects will be required to implement measures to reduce GHG emissions, while small projects, which are generally infill development projects that are not the focus of the State's GHG reduction targets, are allowed to proceed. Further, a 90% emission capture rate sets the emission threshold low enough to capture a substantial proportion of future development projects and demonstrate that cumulative emissions reductions are being achieved while setting the emission threshold high enough to exclude small projects that will, in aggregate, contribute approximate 1% of projected statewide GHG emissions in the Year 2050 (53).

In setting the threshold at 3,000 $MTCO_2e/yr$, SCAQMD researched a database of projects kept by the Governor's Office of Planning and Research (OPR). That database contained 798 projects, 87 of which were removed because they were very large projects and/or outliers that would skew emissions values too high, leaving 711 as the sample population to use in determining the 90th percentile capture rate. The SCAQMD analysis of the 711 projects within the sample population combined commercial, residential, and mixed-use projects. It should be noted that the sample of projects included warehouses and other light industrial land uses but did not include industrial processes (i.e., oil refineries, heavy manufacturing, electric generating stations, mining operations, etc.). Emissions from each of these projects were calculated by SCAQMD to provide a consistent method of emissions calculations across the sample population and from projects within the sample population. In calculating the emissions, the SCAQMD analysis determined that the 90th percentile ranged between 2,983 to 3,143 $MTCO_2e/yr$. The SCAQMD set their significance threshold at the low-end value of the range when rounded to the nearest hundred tons of emissions (i.e., 3,000 $MTCO_2e$ per year) to define small projects that are considered less than significant and do not need to provide further analysis.

The City understands that the 3,000 $MTCO_2e/yr$ threshold for residential/commercial uses was proposed by SCAQMD a decade ago and was adopted as an interim policy; however, no permanent, superseding policy or threshold has since been adopted. The 3,000 $MTCO_2e/yr$ threshold was developed and recommended by SCAQMD, an expert agency, based on substantial evidence as provided in the *Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold* (2008) document and subsequent Working Group meetings (latest of which occurred in 2010). SCAQMD has not withdrawn its support of the interim threshold and all documentation supporting the interim threshold remains on the SCAQMD website on a page that provides guidance to CEQA practitioners for air quality analysis (and where all SCAQMD significance thresholds for regional and local criteria pollutants and toxic air contaminants also are listed). Further, as stated by SCAQMD, this threshold "uses the Executive Order S-3-05 goal [80% below 1990 levels by 2050] as the basis for deriving the screening level" and, thus, remains valid for use (53). Lastly, this threshold has been used for hundreds, if not thousands of GHG analyses performed for projects located within the SCAQMD jurisdiction.

Thus, for purposes of analysis in this analysis, if Project-related GHG emissions do not exceed the 3,000 $MTCO_2e/yr$ threshold, then Project-related GHG emissions would clearly have a less-than-significant impact pursuant to Threshold GHG-1. On the other hand, if Project-related GHG emissions exceed 3,000 $MTCO_2e/yr$, the Project would be considered a substantial source of GHG emissions.

3.3 MODELS EMPLOYED TO ANALYZE GHGS

3.3.1 CALIFORNIA EMISSIONS ESTIMATOR MODEL (CALEEMOD)

In May 2023, the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including the SCAQMD, released the latest version of CalEEMod, version 2022.1.1.21. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources; and

quantify applicable air quality and GHG reductions achieved from mitigation measures (54). Accordingly, the latest version of CalEEMod has been used for this Project to determine GHG emissions. Output from the model runs for construction and operational activity are provided in Appendix 3.1. CalEEMod includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water, refrigerants, stationary, and on-site cargo equipment.

3.4 LIFE-CYCLE ANALYSIS NOT REQUIRED

A full life-cycle analysis (LCA) for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time (55). Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the Project development, infrastructure, and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time, an LCA would be extremely speculative and thus has not been prepared.

Additionally, the SCAQMD recommends analyzing direct and indirect project GHG emissions generated within California and not life-cycle emissions because the life-cycle effects from a project could occur outside of California, might not be very well understood, or documented, and would be challenging to mitigate (56). Additionally, the science to calculate life cycle emissions is not yet established or well defined; therefore, SCAQMD has not recommended, and is not requiring, life-cycle emissions analysis.

Further, the California Natural Resources Agency has stated that "a full 'lifecycle' analysis that would account for energy used in building materials and consumer products will generally not be required" (California Natural Resources Agency, *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines* (Nov. 2018) pp. 41–42), and a life-cycle analysis of GHG emissions "may not be consistent with CEQA" to the extent the term "lifecycle" refers to "emissions beyond those that could be considered 'indirect effects' of a project as that term is defined in section 15358 of the State CEQA Guidelines," (California Natural Resources Agency, *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97* (Dec. 2009) p. 71).

3.5 CONSTRUCTION EMISSIONS

Project construction activities would generate CO_2 and CH_4 emissions. The *Ethanac Business Park Air Quality Impact Analysis Report* (AQIA) contains detailed information regarding Project construction activities (57). As discussed in the AQIA, construction-related emissions are expected from the following activities:

- Offsite Improvements
- Site Preparation
- Grading
- Building Construction

- Paving
- Architectural Coating

3.5.1 CONSTRUCTION DURATION

For purposes of analysis, construction of the Project is expected to commence in February 2025 and last through December 2025. The construction schedule utilized in the analysis, shown in Table 3-2, represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.[4] The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (58).

TABLE 3-2: CONSTRUCTION DURATION

Construction Activity	Start Date	End Date	Working Days
Off-site Grading	4/24/2025	6/5/2025	31
Off-site Paving	6/6/2025	7/18/2025	31
Demolition	2/3/2025	2/17/2025	11
Clear Site	2/18/2025	3/4/2025	11
Grading – Building Pad (Rough)	3/5/2025	4/23/2025	36
Grading – Building Pad (Fine) + Site (Rough)	4/24/2025	6/12/2025	36
Building Construction	6/13/2025	10/17/2025	91
Paving	10/20/2025	11/24/2025	26
Architectural Coating	11/25/2025	12/31/2025	27

3.5.2 CONSTRUCTION EQUIPMENT

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 3-3 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code. In accordance with the City of Menifee's Industrial Good Neighbor Policies, all equipment utilized for Project construction will meet at least CARB Tier 4 Interim standards.

[4] As shown in the CalEEMod User's Guide Version 2022.1, Section 4.3 "Off-Road Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Activity	Equipment	Quantity	Hours Per Day
Off-site Grading	Rubber Tired Dozers	2	8
	Crawler Tractor	3	8
Off-site Paving	Pavers	2	8
	Paving Equipment	2	8
	Roller	2	8
Demolition	Concrete/Industrial Saws	1	8
	Excavators	3	8
	Rubber Tired Dozers	2	8
Clear Site	Rubber Tired Dozers	1	8
Grading – Building Pad (Rough)	Rubber Tired Dozers	1	8
	Scrapers	5	8
Grading – Building Pad (Fine) + Site (Rough)	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
Building Construction	Cranes	1	8
	Forklifts	4	8
	Generator Sets	2	8
	Tractors/Loaders/Backhoes	5	8
	Welders	2	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	2	8

3.5.3 CONSTRUCTION EMISSIONS SUMMARY

For construction emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total GHG emissions for the construction activities, dividing it by a 30-year Project life then adding that number to the annual operational phase GHG emissions (59). As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. The amortized construction emissions are presented in Table 3-4.

TABLE 3-4: AMORTIZED ANNUAL CONSTRUCTION EMISSIONS

Year	Emissions (MT/yr.)				
	CO_2	CH_4	N_2O	Refrigerants	Total CO_2e[5]
2025	665.45	0.03	0.01	0.18	670.51
Total GHG Emissions	665.45	0.03	0.01	0.18	670.51
Amortized Construction Emissions	**22.18**	**0.00**	**0.00**	**0.01**	**22.35**

Source CalEEMod annual construction-source emissions are presented in Appendix 3.1.

3.6 OPERATIONAL EMISSIONS

Operational activities associated with the Project will result in emissions of CO_2, CH_4, N_2O and Refrigerants from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Stationary Source Emissions
- Water Supply, Treatment, and Distribution
- Solid Waste
- On-Site Cargo Handling Equipment

3.6.1 AREA SOURCE EMISSIONS

LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. It should be noted that on October 9, 2021, Governor Gavin Newsom signed AB 1346. The bill aims to ban the sale of new gasoline-powered equipment under 25 gross horsepower (known as small off-road engines [SOREs]) by January 1, 2024, which is now in effect. However, for purposes of analysis, the emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod, and do not incorporate the emissions reductions that would be realized from implementation of AB 1346.

3.6.2 ENERGY SOURCE EMISSIONS

COMBUSTION EMISSIONS ASSOCIATED WITH NATURAL GAS AND ELECTRICITY

Electricity and natural gas are used by almost every project. Greenhouse gas emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or

[5] CalEEMod reports the most common GHGs emitted which include CO_2, CH_4, N_2O and R. These GHGs are then converted into the CO_2e by multiplying the individual GHG by the GWP.

offset through the use of pollution credits (RECLAIM) for generation within the SCAB, greenhouse gas emissions from off-site generation of electricity are generally excluded from the evaluation of significance and only natural gas use is considered. Based on data provided by the Project Applicant, the proposed Project will not utilize natural gas.

STATIONARY SOURCE EMISSIONS

The proposed Project was conservatively assumed to include installation of a 300-horsepower diesel-powered fire pump. The fire pump was estimated to operate for up to 1 hour per day, 1 day per week for up to 50 hours per year for maintenance and testing purposes. Emissions associated with the stationary diesel-powered emergency fire pump was calculated using CalEEMod.

ON-SITE CARGO HANDLING EQUIPMENT

It is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. Consistent with the City of Menifee's Industrial Good Neighbor Policies (60), the analysis assumes that all on-site cargo handling equipment would be electrically powered.

3.6.3 MOBILE SOURCE EMISSIONS

The Project-related operational air quality emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the *Ethanac Business Park Traffic Study Scoping Agreement* were utilized in this analysis (61).

APPROACH FOR ANALYSIS OF THE PROJECT

In order to determine emissions from passenger car vehicles, CalEEMod defaults for trip length and trip purpose were utilized. Default vehicle trip lengths for primary trips are populated using data from the local metropolitan planning organizations/Regional Transportation Planning Agencies (MPO/RTPA). Trip type percentages and trip lengths provided by MPO/RTPAs truncate data at their demonstrative borders. This analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1[6] & LDT2[7]), Medium-Duty-Vehicles (MDV), and Motorcycles (MCY) vehicle types. In order to account for emissions generated by passenger cars, the fleet mix in Table 3-5 was utilized.

TABLE 3-5: PASSENGER CAR FLEET MIX

Land Use	% Vehicle Type				
	LDA	LDT1	LDT2	MDV	MCY
Warehousing	53.90%	4.13%	22.26%	17.20%	2.51%

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod

[6] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[7] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

percentages assigned to LDA, LDT1, LDT2, and MDV vehicle types.

To determine emissions from trucks for the proposed industrial uses, the analysis incorporated the SCAQMD recommended truck trip length of 15.3 miles for 2-axle (LHDT1, LHDT2), 14.2 miles for 3-axle (MHDT) trucks, and 39.9 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using traffic trip percentages. The trip length function for the industrial use has been revised to 30.25 miles with an assumption of 100% primary trips. This trip length assumption is higher than the CalEEMod defaults for trucks. The truck fleet mix is estimated by rationing the trip rates for each truck type based on information provided by the SCAQMD recommended truck mix, by axle type. Heavy trucks are broken down by truck type (or axle type) and are categorized as either Light-Heavy-Duty Trucks (LHDT1[8] & LHDT2[9])/2-axle, Medium-Heavy-Duty Trucks (MHDT)/3-axle, and Heavy-Heavy-Duty Trucks (HHDT)/4+-axle. To account for emissions generated by trucks, the fleet mix in Table 3-6 was utilized.

TABLE 3-6: TRUCK FLEET MIX

Land Use	% Vehicle Type			
	LHDT1	LHDT2	MHDT	HHDT
Warehousing	13.45%	3.83%	20.99%	61.73%

Note: Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT1, LHDT2, MHDT, and HHDT) relative to the total number of truck trips.

3.6.4 WATER SUPPLY, TREATMENT, AND DISTRIBUTION

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of the water. Unless otherwise noted, CalEEMod default parameters were used.

3.6.5 SOLID WASTE

Industrial land use will result in the generation and disposal of solid waste. A percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by CalEEMod using default parameters.

3.6.6 EMISSIONS SUMMARY – WITHOUT MITIGATION

The annual GHG emissions associated with the Project are summarized in Table 3-7. As shown in Table 3-7, construction and operation of the Project would generate a total of 2,655.24 $MTCO_2e$/yr.

[8] Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.

[9] Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.

TABLE 3-7: PROJECT GHG EMISSIONS – WITHOUT MITIGATION

Emission Source	Emissions (MT/yr.)				
	CO_2	CH_4	N_2O	Refrigerants	Total CO_2e
Annual construction-related emissions amortized over 30 years	22.18	8.84E-04	4.72E-04	6.10E-03	22.35
Mobile Source	2,107.55	0.04	0.26	2.71	2,188.69
Area Source	5.37	0.00	0.00	0.00	5.39
Energy Source	198.62	0.02	0.00	0.00	199.78
Water Usage	85.63	2.00	0.05	0.00	149.90
Waste	22.20	2.22	0.00	0.00	77.68
Stationary Source	11.42	0.00	0.00	0.00	11.46
Total CO_2e (All Sources)	**2,655.24**				

Source: CalEEMod output, See Appendix 3.1 for detailed model outputs.

3.7 GHG EMISSIONS FINDINGS AND RECOMMENDATIONS

3.7.1 GHG IMPACT 1

Potential to generate direct or indirect GHG emissions that would result in a significant impact on the environment.

The City of Menifee has not adopted its own numeric threshold of significance for determining impacts with respect to GHG emissions. A screening threshold of 3,000 $MTCO_2e$/yr to determine if additional analysis is required is an acceptable approach for small projects. This approach is a widely accepted screening threshold used by the City of Menifee and numerous cities in the SCAB and is based on the SCAQMD staff's proposed GHG screening threshold for stationary source emissions for non-industrial projects, as described in the SCAQMD's *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans* ("SCAQMD Interim GHG Threshold"). The SCAQMD Interim GHG Threshold identifies a screening threshold to determine whether additional analysis is required (62).

The Project would result in approximately 2,655.24 $MTCO_2e$/yr.; the proposed Project would not exceed the SCAQMD's numeric threshold of 3,000 $MTCO_2e$/yr. Thus, the Project would result in a less than significant impact with respect to GHG emissions.

The Project would not have the potential to generate direct or indirect GHG emissions that would result in a significant impact on the environment.

3.7.2 GHG IMPACT 2

Potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

2022 SCOPING PLAN

As previously stated, pursuant to 15604.4 of the *CEQA Guidelines*, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions (52). As such, the Project's consistency with the 2022 Scoping Plan, is qualitatively discussed below.

Included in the 2022 Scoping Plan is a set of Local Actions (Appendix D to the 2022 Scoping Plan) aimed at providing local jurisdictions with tools to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine if a project would conflict with the 2022 Scoping Plan.

The 2022 Scoping Plan includes three priority areas to reduce GHG emissions that would apply to all land use development projects. More specifically, the three priority areas include: (1) transportation electrification, (2) VMT reduction, and (3) Building Decarbonization. The potential for the Project to conflict with these three priority areas is discussed as follows:

Transportation Electrification: No Conflict. The Project would include EV charging infrastructure that, at minimum, would equal the Tier 2 Nonresidential Voluntary Measures of the California Green Building Standards Code, Section A5.106.5.3.2 Therefore, the Project does not conflict with this priority area.

VMT Reduction: No Conflict. As noted in the Project's VMT Assessment, the Project's effect on VMT was found to be less than significant and therefore the Project would not result in a per-capita increase in VMT. The Project would be providing jobs to the local area and will include numerous transportation measures which would reduce energy consumption and VMT. These measures include a commute trip reduction program which would encourage carpooling, taking transit, walking, and biking, ; a ridesharing program, which encourages carpooled vehicle trips in place of single-occupied vehicle trips, thereby reducing the number of trips and VMT, and end-of-trip bicycle facilities which would ensure provision and maintenance of secure bike parking and related facilities encourages commuting by bicycle, thereby reducing VMT and GHG emissions. As such, the Project does not conflict with this priority area.

Building Decarbonization: No Conflict. No natural gas would be used as part of the Project's on-going operations. The Project would use all-electric appliances without any natural gas connections and would not include the use of propane or other fossils fuels for space heating, water heating, or indoor cooking. Additionally, per Title 24 requirements, the Project would be required to incorporate solar for the office portion of the building. As such, the Project does not conflict with this priority area.

Since the Project does not conflict with any of the 2022 Scoping Plan's priority areas for land use development, the Project would be aligned with the State's Scoping Plan Goals. Lastly, the Project would be required to comply with applicable current and future regulatory requirements promulgated through the 2022 Scoping Plan. Some of the current transportation sector policies the Project will comply with (through vehicle manufacturer compliance) include: Advanced Clean

Cars II, Advanced Clean Trucks, Advanced Clean Fleets, Zero Emission Forklifts, the Off-Road Zero-Emission Targeted Manufacturer Rule, Clean Off-Road Fleet Recognition Program, In-Use Off-Road Diesel-Fueled Fleets Regulation, carbon pricing through the Cap-and-Trade Program, and the Low Carbon Fuel Standard. As such, the Project would not conflict with the 2022 Scoping Plan.

The Project would not have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs .

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5 CERTIFICATIONS

The contents of this GHG study report represent an accurate depiction of the GHG impacts associated with the proposed Ethanac Business Park Project. The information contained in this GHG report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com.

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APPENDIX 3.1:

CALEEMOD EMISSIONS MODEL OUTPUTS

15796 - Ethanac Business Park Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15796 - Ethanac Business Park
Construction Start Date	9/2/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	0.20
Location	33.73974846447821, -117.18160035687643
County	Riverside-South Coast
City	Menifee
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5517
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Unrefrigerated Warehouse-No Rail	265	1000sqft	6.08	264,710	58,864	—	—	Passenger Car Trips
Parking Lot	215	Space	1.22	0.00	0.00	—	—	—
Other Asphalt Surfaces	4.18	Acre	4.18	0.00	0.00	—	—	—
Road Widening	0.35	Mile	3.00	0.00	0.00	—	—	—
User Defined Industrial	265	User Defined Unit	0.00	0.00	0.00	—	—	Truck Trips

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.42	1.30	26.7	54.5	0.10	0.25	6.58	6.76	0.23	2.83	3.02	—	11,274	11,274	0.45	0.18	7.92	11,325
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.31	48.0	26.8	54.2	0.10	0.25	3.34	3.55	0.24	1.09	1.30	—	11,257	11,257	0.45	0.44	0.19	11,307
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.59	4.16	10.8	20.4	0.03	0.11	1.50	1.61	0.10	0.51	0.61	—	4,019	4,019	0.16	0.09	1.11	4,050
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.11	0.76	1.97	3.71	0.01	0.02	0.27	0.29	0.02	0.09	0.11	—	665	665	0.03	0.01	0.18	671

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.42	1.30	26.7	54.5	0.10	0.25	6.58	6.76	0.23	2.83	3.02	—	11,274	11,274	0.45	0.18	7.92	11,325
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.31	48.0	26.8	54.2	0.10	0.25	3.34	3.55	0.24	1.09	1.30	—	11,257	11,257	0.45	0.44	0.19	11,307
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.59	4.16	10.8	20.4	0.03	0.11	1.50	1.61	0.10	0.51	0.61	—	4,019	4,019	0.16	0.09	1.11	4,050
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.11	0.76	1.97	3.71	0.01	0.02	0.27	0.29	0.02	0.09	0.11	—	665	665	0.03	0.01	0.18	671

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.10	10.5	17.3	35.5	0.17	0.41	8.15	8.55	0.39	2.12	2.51	251	19,811	20,062	26.0	2.44	51.9	21,491
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.98	8.53	17.9	20.7	0.17	0.39	8.15	8.53	0.37	2.12	2.49	251	19,461	19,712	26.0	2.45	1.35	21,092

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.94	8.57	11.6	21.9	0.12	0.21	5.96	6.17	0.20	1.55	1.75	251	14,431	14,682	25.8	1.87	16.4	15,903
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.54	1.56	2.12	4.00	0.02	0.04	1.09	1.13	0.04	0.28	0.32	41.6	2,389	2,431	4.28	0.31	2.71	2,633

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.97	1.57	14.4	21.5	0.17	0.24	8.15	8.39	0.23	2.12	2.35	—	17,660	17,660	0.35	2.13	51.9	18,357
Area	2.05	7.93	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Stationary	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	5.10	10.5	17.3	35.5	0.17	0.41	8.15	8.55	0.39	2.12	2.51	251	19,811	20,062	26.0	2.44	51.9	21,491
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.90	1.51	15.1	18.2	0.16	0.24	8.15	8.39	0.23	2.12	2.35	—	17,358	17,358	0.35	2.14	1.35	18,006
Area	—	6.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469

Stationar	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	2.98	8.53	17.9	20.7	0.17	0.39	8.15	8.53	0.37	2.12	2.49	251	19,461	19,712	26.0	2.45	1.35	21,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.39	1.10	11.2	13.7	0.12	0.18	5.96	6.13	0.17	1.55	1.72	—	12,730	12,730	0.26	1.57	16.4	13,220
Area	1.40	7.33	0.07	7.88	< 0.005	0.01	—	0.01	0.01	—	0.01	—	32.4	32.4	< 0.005	< 0.005	—	32.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,200	1,200	0.11	0.01	—	1,207
Water	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Waste	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Stationary	0.15	0.13	0.38	0.34	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	69.0	69.0	< 0.005	< 0.005	0.00	69.2
Total	2.94	8.57	11.6	21.9	0.12	0.21	5.96	6.17	0.20	1.55	1.75	251	14,431	14,682	25.8	1.87	16.4	15,903
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.25	0.20	2.04	2.50	0.02	0.03	1.09	1.12	0.03	0.28	0.31	—	2,108	2,108	0.04	0.26	2.71	2,189
Area	0.26	1.34	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	199	199	0.02	< 0.005	—	200
Water	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150
Waste	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7
Stationary	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5
Total	0.54	1.56	2.12	4.00	0.02	0.04	1.09	1.13	0.04	0.28	0.32	41.6	2,389	2,431	4.28	0.31	2.71	2,633

3. Construction Emissions Details

3.1. Off-Site Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	0.47	10.9	20.8	0.04	0.07	—	0.07	0.07	—	0.07	—	3,802	3,802	0.15	0.03	—	3,815
Dust From Material Movement	—	—	—	—	—	—	3.82	3.82	—	1.80	1.80	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.93	1.77	< 0.005	0.01	—	0.01	0.01	—	0.01	—	323	323	0.01	< 0.005	—	324
Dust From Material Movement	—	—	—	—	—	—	0.32	0.32	—	0.15	0.15	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.17	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	53.5	53.5	< 0.005	< 0.005	—	53.6
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.97	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	176	176	0.01	0.01	0.65	179
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.6	30.6	< 0.005	< 0.005	0.09	32.1
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.9	13.9	< 0.005	< 0.005	0.02	14.1
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.60	2.60	< 0.005	< 0.005	< 0.005	2.72
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.31	2.31	< 0.005	< 0.005	< 0.005	2.34
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.45
Hauling	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	0.00

3.3. Off-Site Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,517
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.61	0.90	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	129
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.11	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	1.16	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	211	211	0.01	0.01	0.78	215
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.03	17.0
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.77	2.77	< 0.005	< 0.005	< 0.005	2.81
Vendor	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	0.00

Hauling	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	0.00

3.5. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41	0.41	11.9	18.2	0.03	0.20	—	0.20	0.19	—	0.19	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.59	1.59	—	0.24	0.24	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.36	0.55	< 0.005	0.01	—	0.01	0.01	—	0.01	—	103	103	< 0.005	< 0.005	—	104
Demolition	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.1	17.1	< 0.005	< 0.005	—	17.1
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	61.2	61.2	< 0.005	0.01	< 0.005	64.0
Hauling	0.08	0.03	2.67	0.51	0.02	0.05	0.66	0.71	0.05	0.19	0.24	—	2,503	2,503	0.04	0.39	0.14	2,621
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.93	5.93	< 0.005	< 0.005	0.01	6.02
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.93
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	75.4	75.4	< 0.005	0.01	0.07	79.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.98	0.98	< 0.005	< 0.005	< 0.005	1.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.5	12.5	< 0.005	< 0.005	0.01	13.1

3.7. Clear Site (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	3.34	6.73	0.01	0.03	—	0.03	0.03	—	0.03	—	1,378	1,378	0.06	0.01	—	1,383
Dust From Material Movement	—	—	—	—	—	—	1.70	1.70	—	0.88	0.88	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.10	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.5	41.5	< 0.005	< 0.005	—	41.7
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.87	6.87	< 0.005	< 0.005	—	6.90
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.4	32.4	< 0.005	< 0.005	< 0.005	32.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	61.2	61.2	< 0.005	0.01	< 0.005	64.0
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.93
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
Hauling	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	0.00

3.9. Grading - Building Pad (Rough) (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.23	26.4	53.3	0.10	0.20	—	0.20	0.20	—	0.20	—	10,849	10,849	0.44	0.09	—	10,886
Dust From Material Movement	—	—	—	—	—	—	3.08	3.08	—	1.02	1.02	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.23	26.4	53.3	0.10	0.20	—	0.20	0.20	—	0.20	—	10,849	10,849	0.44	0.09	—	10,886
Dust From Material Movement	—	—	—	—	—	—	3.08	3.08	—	1.02	1.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.12	2.61	5.26	0.01	0.02	—	0.02	0.02	—	0.02	—	1,070	1,070	0.04	0.01	—	1,074
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.48	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	177	177	0.01	< 0.005	—	178
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	1.16	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	211	211	0.01	0.01	0.78	215

Vendor	0.01	< 0.005	0.24	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	214	214	< 0.005	0.03	0.61	225
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	0.01	< 0.005	0.25	0.08	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	214	214	< 0.005	0.03	0.02	224
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	0.03	19.7
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.03	22.1
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.21	3.21	< 0.005	< 0.005	0.01	3.26
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.50	3.50	< 0.005	< 0.005	< 0.005	3.66
Hauling	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	0.00

3.11. Grading – Building Pad (Fine) + Site (Rough) (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.67	14.9	29.3	0.05	0.11	—	0.11	0.11	—	0.11	—	5,735	5,735	0.23	0.05	—	5,754

Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	1.47	2.89	0.01	0.01	—	0.01	0.01	—	0.01	—	566	566	0.02	< 0.005	—	568
Dust From Material Movement	—	—	—	—	—	—	0.24	0.24	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.27	0.53	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.6	93.6	< 0.005	< 0.005	—	94.0
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.77	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	141	141	0.01	< 0.005	0.52	143
Vendor	0.01	< 0.005	0.24	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	214	214	< 0.005	0.03	0.61	225
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.9	12.9	< 0.005	< 0.005	0.02	13.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.03	22.1
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.14	2.14	< 0.005	< 0.005	< 0.005	2.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.50	3.50	< 0.005	< 0.005	< 0.005	3.66
Hauling	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	0.00

3.13. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.49	14.1	22.3	0.04	0.15	—	0.15	0.15	—	0.15	—	3,675	3,675	0.15	0.03	—	3,688
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.49	14.1	22.3	0.04	0.15	—	0.15	0.15	—	0.15	—	3,675	3,675	0.15	0.03	—	3,688
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.12	3.52	5.56	0.01	0.04	—	0.04	0.04	—	0.04	—	916	916	0.04	0.01	—	919
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.64	1.01	< 0.005	0.01	—	0.01	0.01	—	0.01	—	152	152	0.01	< 0.005	—	152
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60	0.50	0.49	8.59	0.00	0.00	1.45	1.45	0.00	0.34	0.34	—	1,567	1,567	0.06	0.06	5.76	1,591
Vendor	0.02	0.01	0.54	0.17	< 0.005	0.01	0.14	0.14	0.01	0.04	0.05	—	490	490	0.01	0.07	1.39	513
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.53	0.47	0.54	6.49	0.00	0.00	1.45	1.45	0.00	0.34	0.34	—	1,440	1,440	0.07	0.06	0.15	1,459
Vendor	0.02	0.01	0.56	0.17	< 0.005	0.01	0.14	0.14	0.01	0.04	0.05	—	490	490	0.01	0.07	0.04	512
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.15	1.71	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	364	364	0.02	0.01	0.62	369
Vendor	0.01	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	122	122	< 0.005	0.02	0.15	128
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.03	0.31	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	60.2	60.2	< 0.005	< 0.005	0.10	61.1

Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.2	20.2	< 0.005	< 0.005	0.02	21.2
Hauling	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	0.00

3.15. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.51	0.76	< 0.005	0.01	—	0.01	0.01	—	0.01	—	108	108	< 0.005	< 0.005	—	108
Paving	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.09	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.8	17.8	< 0.005	< 0.005	—	17.9
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	0.01	< 0.005	0.18	0.05	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	153	153	< 0.005	0.02	0.01	160
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.02	14.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.9	10.9	< 0.005	< 0.005	0.01	11.4
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.32	2.32	< 0.005	< 0.005	< 0.005	2.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.80	1.80	< 0.005	< 0.005	< 0.005	1.89
Hauling	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	0.00

3.17. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.06	0.06	2.85	2.57	< 0.005	0.08	—	0.08	0.08	—	0.08	—	356	356	0.01	< 0.005	—	357
Architectural Coatings	—	47.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.21	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.3	26.3	< 0.005	< 0.005	—	26.4
Architectural Coatings	—	3.54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.36	4.36	< 0.005	< 0.005	—	4.38
Architectural Coatings	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.09	0.11	1.30	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	288	288	0.01	0.01	0.03	292
Vendor	0.01	< 0.005	0.18	0.05	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	153	153	< 0.005	0.02	0.01	160
Hauling	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.6	21.6	< 0.005	< 0.005	0.04	21.9
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.01	11.9
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.57	3.57	< 0.005	< 0.005	0.01	3.62
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.87	1.87	< 0.005	< 0.005	< 0.005	1.96
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.40	1.26	0.83	17.7	0.04	0.02	3.88	3.90	0.02	0.98	1.00	—	3,992	3,992	0.12	0.09	13.2	4,034
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00

User Defined Industrial	0.57	0.32	13.6	3.82	0.13	0.22	4.26	4.48	0.21	1.14	1.35	—	13,668	13,668	0.22	2.05	38.7	14,322
Total	1.97	1.57	14.4	21.5	0.17	0.24	8.15	8.39	0.23	2.12	2.35	—	17,660	17,660	0.35	2.13	51.9	18,357
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.34	1.20	0.92	14.3	0.04	0.02	3.88	3.90	0.02	0.98	1.00	—	3,686	3,686	0.13	0.09	0.34	3,717
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.56	0.31	14.2	3.84	0.13	0.22	4.26	4.49	0.21	1.14	1.35	—	13,672	13,672	0.22	2.05	1.00	14,289
Total	1.90	1.51	15.1	18.2	0.16	0.24	8.15	8.39	0.23	2.12	2.35	—	17,358	17,358	0.35	2.14	1.35	18,006
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.18	0.16	0.13	1.99	< 0.005	< 0.005	0.52	0.52	< 0.005	0.13	0.13	—	452	452	0.02	0.01	0.69	456
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.08	0.04	1.92	0.51	0.02	0.03	0.57	0.60	0.03	0.15	0.18	—	1,656	1,656	0.03	0.25	2.03	1,732
Total	0.25	0.20	2.04	2.50	0.02	0.03	1.09	1.12	0.03	0.28	0.31	—	2,108	2,108	0.04	0.26	2.71	2,189

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,156	1,156	0.11	0.01	—	1,162
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	44.2	44.2	< 0.005	< 0.005	—	44.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,200	1,200	0.11	0.01	—	1,207
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,156	1,156	0.11	0.01	—	1,162
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	44.2	44.2	< 0.005	< 0.005	—	44.4

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,200	1,200	0.11	0.01	—	1,207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	191	191	0.02	< 0.005	—	192
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	7.31	7.31	< 0.005	< 0.005	—	7.35
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	199	199	0.02	< 0.005	—	200

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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

Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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

Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.05	1.89	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Total	2.05	7.93	0.10	11.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.3	47.3	< 0.005	< 0.005	—	47.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39
Total	0.26	1.34	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.39

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	117	400	517	12.1	0.29	—	905
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.4	66.2	85.6	2.00	0.05	—	150

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	469
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.22	0.00	—	77.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5
Total	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Off-Site Grading	Linear, Grading & Excavation	4/24/2025	6/5/2025	5.00	31.0	—
Off-Site Paving	Linear, Paving	6/6/2025	7/18/2025	5.00	31.0	—
Demolition	Demolition	2/3/2025	2/17/2025	5.00	11.0	—
Clear Site	Site Preparation	2/18/2025	3/4/2025	5.00	11.0	—

Grading - Building Pad (Rough)	Grading	3/5/2025	4/23/2025	5.00	36.0	—
Grading – Building Pad (Fine) + Site (Rough)	Grading	4/24/2025	6/12/2025	5.00	36.0	—
Building Construction	Building Construction	6/13/2025	10/17/2025	5.00	91.0	—
Paving	Paving	10/20/2025	11/24/2025	5.00	26.0	—
Architectural Coating	Architectural Coating	11/25/2025	12/31/2025	5.00	27.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Off-Site Grading	Crawler Tractors	Diesel	Tier 4 Interim	3.00	8.00	87.0	0.43
Off-Site Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40
Off-Site Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Off-Site Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Off-Site Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Tier 4 Interim	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Clear Site	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading - Building Pad (Rough)	Scrapers	Diesel	Tier 4 Interim	5.00	8.00	423	0.48
Grading - Building Pad (Rough)	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading – Building Pad (Fine) + Site (Rough)	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading – Building Pad (Fine) + Site (Rough)	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40

Grading – Building Pad (Fine) + Site (Rough)	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Building Construction	Forklifts	Diesel	Tier 4 Interim	4.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Interim	2.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	8.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Interim	2.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	5.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	2.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	2.00	10.2	HHDT,MHDT
Demolition	Hauling	18.4	40.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Clear Site	—	—	—	—
Clear Site	Worker	2.50	18.5	LDA,LDT1,LDT2
Clear Site	Vendor	2.00	10.2	HHDT,MHDT
Clear Site	Hauling	0.00	20.0	HHDT
Clear Site	Onsite truck	—	—	HHDT
Grading - Building Pad (Rough)	—	—	—	—

Grading - Building Pad (Rough)	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading - Building Pad (Rough)	Vendor	7.00	10.2	HHDT,MHDT
Grading - Building Pad (Rough)	Hauling	0.00	20.0	HHDT
Grading - Building Pad (Rough)	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	111	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	16.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	5.00	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	22.2	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	5.00	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Grading – Building Pad (Fine) + Site (Rough)	—	—	—	—
Grading – Building Pad (Fine) + Site (Rough)	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading – Building Pad (Fine) + Site (Rough)	Vendor	7.00	10.2	HHDT,MHDT
Grading – Building Pad (Fine) + Site (Rough)	Hauling	0.00	20.0	HHDT
Grading – Building Pad (Fine) + Site (Rough)	Onsite truck	—	—	HHDT

Off-Site Grading	—	—	—	—
Off-Site Grading	Worker	12.5	18.5	LDA,LDT1,LDT2
Off-Site Grading	Vendor	1.00	10.2	HHDT,MHDT
Off-Site Grading	Hauling	0.00	20.0	HHDT
Off-Site Grading	Onsite truck	—	—	HHDT
Off-Site Paving	—	—	—	—
Off-Site Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Off-Site Paving	Vendor	0.00	10.2	HHDT,MHDT
Off-Site Paving	Hauling	0.00	20.0	HHDT
Off-Site Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	397,065	132,355	14,113

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Off-Site Grading	—	—	3.00	0.00	—
Demolition	0.00	0.00	0.00	17,562	—
Clear Site	—	—	5.50	0.00	—

Grading - Building Pad (Rough)	—	—	198	0.00	—
Grading – Building Pad (Fine) + Site (Rough)	—	—	108	0.00	—
Paving	0.00	0.00	0.00	0.00	8.40

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.22	100%
Other Asphalt Surfaces	4.18	100%
Road Widening	3.00	100%
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	349	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year

Unrefrigerated Warehouse-No Rail	294	25.7	10.3	78,551	5,577	487	196	1,489,595
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	162	14.0	5.56	43,258	4,901	424	168	1,308,548

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	397,065	132,355	14,113

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)

Unrefrigerated Warehouse-No Rail	1,218,288	346	0.0330	0.0040	0.00
Parking Lot	46,553	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
User Defined Industrial	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	61,214,187	933,331
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	249	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	1.00	1.00	50.0	300	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.8	annual days of extreme heat
Extreme Precipitation	2.60	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.89	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	49.2
AQ-DPM	31.8
Drinking Water	10.2
Lead Risk Housing	16.1
Pesticides	27.2
Toxic Releases	23.1
Traffic	72.3
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	22.1
Haz Waste Facilities/Generators	23.7
Impaired Water Bodies	0.00
Solid Waste	52.9
Sensitive Population	—
Asthma	42.3
Cardio-vascular	74.9

Low Birth Weights	9.85
Socioeconomic Factor Indicators	—
Education	58.9
Housing	12.8
Linguistic	7.38
Poverty	50.7
Unemployment	30.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	31.83626331
Employed	9.39304504
Median HI	19.47901963
Education	—
Bachelor's or higher	31.46413448
High school enrollment	100
Preschool enrollment	61.41408957
Transportation	—
Auto Access	91.71050943
Active commuting	43.93686642
Social	—
2-parent households	8.456306942
Voting	25.54856923
Neighborhood	—
Alcohol availability	85.78211215

Park access	2.194276915
Retail density	15.48825869
Supermarket access	15.07763377
Tree canopy	1.077890414
Housing	—
Homeownership	92.2751187
Housing habitability	54.38213782
Low-inc homeowner severe housing cost burden	5.658924676
Low-inc renter severe housing cost burden	73.36070833
Uncrowded housing	54.63877839
Health Outcomes	—
Insured adults	13.51212627
Arthritis	4.6
Asthma ER Admissions	63.2
High Blood Pressure	6.0
Cancer (excluding skin)	16.1
Asthma	21.6
Coronary Heart Disease	3.6
Chronic Obstructive Pulmonary Disease	5.0
Diagnosed Diabetes	23.2
Life Expectancy at Birth	14.6
Cognitively Disabled	97.6
Physically Disabled	26.6
Heart Attack ER Admissions	35.8
Mental Health Not Good	30.2
Chronic Kidney Disease	7.4
Obesity	24.6

Pedestrian Injuries	72.5
Physical Health Not Good	21.6
Stroke	8.8
Health Risk Behaviors	—
Binge Drinking	69.8
Current Smoker	21.9
No Leisure Time for Physical Activity	24.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	19.9
Elderly	29.3
English Speaking	74.5
Foreign-born	34.9
Outdoor Workers	34.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	81.9
Traffic Density	49.5
Traffic Access	23.0
Other Indices	—
Hardship	81.8
Other Decision Support	—
2016 Voting	40.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	27.0

Healthy Places Index Score for Project Location (b)	20.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Client provided construction dates and off-site construction dates
Land Use	Acreage taken from Site Plan Off-SIte construction acreage and miles of construction conservatively assumed
Construction: Off-Road Equipment	Client provided construction equipment and standard 8-hour work day
Construction: Trips and VMT	"CalEEMod only assumes Vendor Trips during Building Construction. The CalEEMod default trips are based on the ratio between each phase based on the number of days." Demolition quantities will be hauled off-site to a site approximately 40-miles away
Construction: Architectural Coatings	SCAQMD Rule 1113
Operations: Vehicle Data	Trip Characteristics based on information provided in the Traffic Analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle trucks
Operations: Architectural Coatings	SCAQMD Rule 1113

Operations: Energy Use	Natural Gas will not be utilized

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Appendix G: Phase I Environmental Site Assessment and Shallow Soil Investigation Report

PARTNER
Engineering and Science, Inc.

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

Menifee Commerce Center Phase 3
26227 Sherman Road
Menifee, California 92585

Report Date: April 27, 2022
Partner Project No. 22-366047.1

Prepared for:

Core5 Industrial Partners
300 Spectrum Center Drive, Suite 880
Irvine, California 92618

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PARTNER
Engineering and Science, Inc.

April 27, 2022

Mr. Jon Kelly
Core5 Industrial Partners
300 Spectrum Center Drive, Suite 880
Irvine, California 92618

Subject: Phase I Environmental Site Assessment
Menifee Commerce Center Phase 3
26227 Sherman Road
Menifee, California 92585
Partner Project No. 22-366047.1

Dear Mr. Kelly:

Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the *Phase I Environmental Site Assessment* (Phase I ESA) report of the abovementioned address (the "subject property"). This assessment was performed in conformance with the scope and limitations as detailed in the ASTM Practice E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

This assessment included a site reconnaissance as well as research and interviews with representatives of the public, property ownership, site manager, and regulatory agencies. An assessment was made, conclusions stated, and recommendations outlined.

We appreciate the opportunity to provide environmental services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (818) 337-1203.

Sincerely,

Misty Ponce
Principal

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EXECUTIVE SUMMARY

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in accordance with the scope of work and limitations of ASTM Standard Practice E1527-13, the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) and set forth by Core5 Industrial Partners for the property located at 26227 Sherman Road in Menifee, Riverside County, California (the "subject property"). The Phase I Environmental Site Assessment is designed to provide Core5 Industrial Partners with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the subject property.

Property Description

The subject property is located on the west side of Sherman Road between Ethanac Road to the north and McLaughlin Road to the south within a historical agricultural area of Riverside County. Please refer to the table below for further description of the subject property:

Subject Property Data	
Addresses:	26227 Sherman Road, Menifee, California 92585
Property Use:	Storage and Maintenance Yard
Land Acreage (Ac):	12 Ac (per Assessor's Parcel Map)
Number of Buildings:	One
Number of Floors:	One
Gross Building Area (SF):	1,080 SF (former residence, renovated to office use)
Net Rentable Area (SF):	1,080 SF (former residence, renovated to office use)
Date of Construction:	1964/1965
Assessor's Parcel Number (APN):	331-110-023; 331-110-038; and 331-110-039
Type of Construction:	Wood-Framed
Current Tenants:	North County Sand & Gravel, surface mining company
Site Assessment Performed By:	Margaret Thomas of Partner
Site Assessment Conducted On:	April 14, 2022

The subject property is comprised of three contiguous parcels of land currently occupied by North County Sand & Gravel for use as a storage and maintenance yard for off-site surface mining operations. The property is developed with one former residence that is renovated for use as offices. On site operations include storage and maintenance of mining equipment and trucks, fueling (diesel) from two aboveground storage tanks (ASTs), and subleased areas for storage containers, bins and truck trailers. The subject property is primarily unpaved and covered with gravel and surrounded by chain-link fencing and a concrete block wall along one side. The property has a septic tank, municipal water, and electricity and gas connections. Site access is from Sherman Road, which is an unpaved thoroughfare along the subject property at this time. In addition to the offices, the property is developed with an open concrete loading dock with dock leveler, several open-sided aggregate bins, and a concrete slab for maintenance activities.

The subject property is identified on the regulatory database for surface mining activities, aboveground petroleum storage, hazardous waste generator, chemical storage, and Resource Conservation Recovery Act (RCRA) Non-Generator. Partner did not observe significant environmental concerns in connection with site operations.

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According to available historical sources, the subject property was formerly agricultural land dating back to 1938 (and likely earlier) that included a residence constructed in circa 1964-1965; appeared to be fallow land or intermittent cultivated land in the 1970s to 2002; a change of zoning occurred in circa 2006 from Rural (R-R) to Industrial (M-H); and occupied by the current tenant from circa 2006 to the present (North County Sand & Gravel). Tenants on the subject property have included private residents and North County Sand & Gravel; no other businesses were identified.

The immediately surrounding properties consist of Summit Equipment Rentals facility (26105 Sherman Road) to the north; agricultural land (fallow) to the south; Sherman Road to the east followed by agricultural land (fallow); and agricultural land and private residences with rear storage lots to the west. None of the adjacent properties were identified as having past or present underground storage tanks (USTs) or site remediation cases.

According to information obtained from the Eastern Municipal Water District (EMWD) for two nearby wells, the depth to groundwater in the vicinity of the subject property is inferred to be approximately 71 to 96 feet below ground surface (bgs), and groundwater flow is inferred to be toward the west-southwest following surface topography.

Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment.

- Partner did not identify RECs during the course of this assessment.

A *controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

- Partner did not identify CRECs during the course of this assessment.

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

- Partner did not identify HRECs during the course of this assessment.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion.

- The subject property is currently used as a storage and maintenance yard in connection with surface mining operations dating back to circa 2006. Mining operations are conducted at off-site locations. During the site visit, vehicle maintenance activities were observed on the north side on the property on a concrete slab. Hazardous waste is generated that includes primarily waste oil stored in one 500-gallon capacity AST and 55-gallon drums. Additional hazardous substances

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include diesel fuel (stored in two ASTs: one 7,000-gallon and one 1,000-gallon capacity tanks), fresh motor oil, DEF (diesel exhaust fluid), gear oil, hydraulic fluid, antifreeze, and other typical automotive fluids and cleaners. Liquid hazardous waste drums are situated on secondary containment basins, and the 7,000-gallon AST is situated within a concrete secondary containment structure. The smaller diesel tank is situated on a metal stand over gravel and appears to have internal secondary containment; however, that was not confirmed. No significant staining or leaks were observed around the maintenance or fueling areas. Based on visual observations and regulatory compliance information that reports no outstanding violations at this time, vehicle maintenance and fueling operations are considered an environmental issue.

- Due to the age of the subject property building (1964/65), there is a potential that asbestos-containing materials (ACMs) are present. Overall, suspect ACMs were observed in good condition and do not pose a health and safety concern to the occupants of the subject property at this time. According to the United States Environmental Protection Agency (EPA) guidelines, suspect materials that are intact and in good condition can, in general, be managed safely in-place under an Operations and Maintenance (O&M) Program until removal is dictated by renovation, demolition, or deteriorating material condition. Prior to disturbance of the building materials within the building, an ACM survey is recommended.

Conclusions, Opinions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 26227 Sherman Road in Menifee, Riverside County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property; however, environmental issues were identified. Based on the conclusions of this assessment, Partner recommends no further investigations are necessary.

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1.0 INTRODUCTION

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of ASTM Standard Practice E1527-13 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) for the property located at 26227 Sherman Road in Menifee, Riverside County, California (the "subject property"). Any exceptions to, or deletions from, this scope of work are described in the report.

1.1 Purpose

The purpose of this ESA is to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E1527-13) affecting the subject property that: 1) constitute or result in a material violation or a potential material violation of any applicable environmental law; 2) impose any material constraints on the operation of the subject property or require a material change in the use thereof; 3) require clean-up, remedial action or other response with respect to Hazardous Substances or Petroleum Products on or affecting the subject property under any applicable environmental law; 4) may affect the value of the subject property; and 5) may require specific actions to be performed with regard to such conditions and circumstances. The information contained in the ESA Report will be used by Client to: 1) evaluate its legal and financial liabilities for transactions related to foreclosure, purchase, sale, loan origination, loan workout or seller financing; 2) evaluate the subject property's overall development potential, the associated market value and the impact of applicable laws that restrict financial and other types of assistance for the future development of the subject property; and/or 3) determine whether specific actions are required to be performed prior to the foreclosure, purchase, sale, loan origination, loan workout or seller financing of the subject property.

This ESA was performed to permit the *User* to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) liability (hereinafter, the "*landowner liability protections*," or "*LLPs*"). ASTM Standard E1527-13 constitutes "*all appropriate inquiry* into the previous ownership and uses of the *property* consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B).

1.2 Scope of Work

The scope of work for this ESA is in accordance with the requirements of ASTM Standard E1527-13. This assessment included: 1) a property and adjacent site reconnaissance; 2) interviews with key personnel; 3) a review of historical sources; 4) a review of regulatory agency records; and 5) a review of a regulatory database report provided by a third-party vendor. Partner contacted local agencies, such as environmental health departments, fire departments and building departments in order to determine any current and/or former hazardous substances usage, storage and/or releases of hazardous substances on the subject property. Additionally, Partner researched information on the presence of activity and use limitations (AULs) at these agencies. As defined by ASTM E1527-13, AULs are the legal or physical restrictions or limitations on the use of, or access to, a site or facility: 1) to reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil or groundwater on the subject property; or 2) to prevent activities that could interfere with the effectiveness of a response action, in

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order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls (IC/ECs), are intended to prevent adverse impacts to individuals or populations that may be exposed to hazardous substances and petroleum products in the soil or groundwater on the property.

If requested by Client, this report may also include the identification, discussion of, and/or limited sampling of asbestos-containing materials (ACMs), lead-based paint (LBP), mold, and/or radon.

1.3 Limitations

Partner warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the Scope of Work. These methodologies are described as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying recognized environmental conditions. There is a possibility that even with the proper application of these methodologies there may exist on the subject property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. Partner believes that the information obtained from the record review and the interviews concerning the subject property is reliable. However, Partner cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by the Client. No other warranties are implied or expressed.

Some of the information provided in this report is based upon personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This report is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those persons contacted.

This practice does not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiry provisions of the LLPs. Further, this report does not intend to address all of the safety concerns, if any, associated with the subject property.

Environmental concerns, which are beyond the scope of a Phase I ESA as defined by ASTM include the following: ACMs, LBP, radon, and lead in drinking water. These issues may affect environmental risk at the subject property and may warrant discussion and/or assessment; however, are considered non-scope issues. If specifically requested by the Client, these non-scope issues are discussed in Section 6.3.

1.4 User Reliance

Core5 Industrial Partners engaged Partner to perform this assessment in accordance with an agreement governing the nature, scope and purpose of the work as well as other matters critical to the engagement. All reports, both verbal and written, are for the sole use and benefit of Core5 Industrial Partners. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with Partner granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against Partner, its officers, employees, vendors, successors or assigns. Any such

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unauthorized user shall be responsible to protect, indemnify and hold Partner, Client and their respective officers, employees, vendors, successors and assigns harmless from any and all claims, damages, losses, liabilities, expenses (including reasonable attorneys' fees) and costs attributable to such Use. Unauthorized use of this report shall constitute acceptance of and commitment to these responsibilities, which shall be irrevocable and shall apply regardless of the cause of action or legal theory pled or asserted. Additional legal penalties may apply.

This report has been completed under specific Terms and Conditions relating to scope, relying parties, limitations of liability, indemnification, dispute resolution, and other factors relevant to any reliance on this report. Any parties relying on this report do so having accepted Partner's standard Terms and Conditions, a copy of which can be found at http://www.partneresi.com/terms-and-conditions.php.

1.5 Limiting Conditions

The findings and conclusions contain all of the limitations inherent in these methodologies that are referred to in ASTM E1527-13.

Specific limitations and exceptions to this ESA are more specifically set forth below:

- Interviews with past owners, operators and occupants were not reasonably ascertainable and thus constitute a data gap. Based on information obtained from other historical sources (as discussed in Section 3.0), this data gap is not expected to alter the findings of this assessment.
- Partner was unable to determine the property use at 5-year intervals, which constitutes a data gap. Information concerning historical tenants and specific uses of the subject property was unavailable from circa 1970s to early 2000s. Except for property tax files and recorded land title records, interviews with historical tenants, etc., which are not readily available or reasonably ascertainable, Partner reviewed all standard historical sources and conducted appropriate interviews.
- Partner submitted a Freedom of Information Act (FOIA) requests to the Riverside County Department of Environmental Health for information pertaining to hazardous substances, underground storage tanks, releases, inspection records, etc. for the subject property. As of this writing, this agency has not completed Partner's request. Based on information obtained from other historical and regulatory sources, this limitation is not expected to alter the overall findings of this assessment.

Due to time constraints associated with this report, the Client has requested the report despite the above-listed limitations.

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2.0 SITE DESCRIPTION

2.1 Site Location and Legal Description

The subject property at 26227 Sherman Road in Menifee, California is located on the west side of Sherman Road between Ethanac Road to the north and McLaughlin Road to the south within a historical agricultural area of Riverside County. According to the Riverside County Assessor, the subject property is described as follows:

APN	Address	Legal Description	Current Owner
331-110-023	26227 Sherman Road	1.16 Acres in Por Lot 68 MB 011/038 Trumble Farms	Michael J. LaPaglia and Tracy F. LaPaglia, Husband and Wife as Joint Tenants, as of 2006
331-110-038	26227 Sherman Road	4.77 Acres M/L (More or Less) in Lot 60 MB 011/038 Trumble Farms	North County Sand and Gravel, Inc., as of 2004
331-110-039	26227 Sherman Road	6.07 Acres M/L in Por Lot 62 and Lot 61 MB 011/038 Trumble Farms	North County Sand and Gravel, Inc., as of 2004

Please refer to Figure 1: Site Location Map, Figure 2: Site Plan, Figure 3: Topographic Map, and Appendix A: Site Photographs for the location and site characteristics of the subject property.

2.2 Current Property Use

The subject property is comprised of three contiguous parcels of land currently occupied by North County Sand & Gravel for use as a storage and maintenance yard for off-site surface mining operations. The property is developed with a former residence that is renovated for use as offices. On site operations include storage and maintenance of mining equipment and trucks, fueling (diesel) from two ASTs, and subleased areas for storage containers, bins and truck trailers. The subject property is primarily unpaved and covered with gravel and surrounded by chain-link fencing and a concrete block wall. The property has a septic tank, municipal water, and electricity and gas connections. Site access is from Sherman Road, which is an unpaved thoroughfare along the subject property at this time. In addition to the offices, the property is developed with an open concrete loading dock with dock leveler, several open-sided concrete block aggregate bins, and a concrete slab for maintenance activities.

The subject property is currently zoned Menifee North Specific Plan and HI (Heavy Industrial/Manufacturing) by the City of Menifee who incorporated in circa 2008. According to the County of Riverside records, a zoning change was recorded in 2006 from Rural (R-R) to Industrial (M-H).

The subject property is identified in the regulatory database for surface mining activities, aboveground petroleum storage, hazardous waste generator, chemical storage, and Resource Conservation Recovery Act (RCRA) Non-Generator (NonGen), as further discussed in Section 4.2.

2.3 Current Use of Adjacent Properties

The subject property is located within a historical agricultural area of Riverside County. During the vicinity reconnaissance, Partner observed the following land use on properties in the immediate vicinity of the subject property:

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Immediately Surrounding Properties

North: Summit Equipment Rentals facility (26105 Sherman Road)
South: Agricultural land (fallow)
East: Sherman Road (unpaved) followed by agricultural land (fallow)
West: Agricultural land and private residences with rear storage lots

None of the adjacent properties were identified as having past or present Underground Storage Tanks (USTs) or site remediation cases. The adjacent property to the north is identified as a past and/or present hazardous waste generator in the regulatory database report of Section 4.2.

2.4 Physical Setting Sources

2.4.1 Topography

The United States Geological Survey (USGS) *Romoland, California* Quadrangle 7.5-minute series topographic map was reviewed for this ESA. According to the contour lines on the topographic map, the subject property is located at approximately 1,430 feet above mean sea level (MSL). The contour lines in the area of the subject property indicate the area is relatively flat and sloping gently toward the west-southwest. The subject property is depicted as agricultural land in 1953 and 1973 topographic maps (see Section 3.4 for historical topographic map discussion).

A copy of the most recent topographic map is included as Figure 3 of this report.

2.4.2 Hydrology

According to topographic map interpretation, the direction of groundwater flow in the vicinity of the subject property is inferred to be toward the west-southwest. The nearest surface water in the vicinity of the subject property is a man-made lake known as Heritage Lake located approximately 2.2 miles southeast of the subject property. No settling ponds, lagoons, surface impoundments, wetlands or natural catch basins were observed at the subject property during this assessment.

According to available information, drinking water is supplied to the subject property and vicinity by the Eastern Municipal Water District (EMWD) that uses several sources of water including surface water from the Colorado River and the State Water Project (SWP) as well as local groundwater. During the site visit, Partner did not find evidence of public drinking water wells at the subject property or on adjacent properties. In addition, no irrigation wells or private drinking water wells were observed or reported at the subject property. Therefore, it does not appear that groundwater beneath the subject property is drawn as a municipal drinking water source.

According to information obtained from the EMWD for two nearby wells, the depth to groundwater in the vicinity of the subject property is inferred to be approximately 71 to 96 feet bgs, and groundwater flow is inferred to be toward the west-southwest following surface topography.

2.4.3 Geology/Soils

The subject property is located in the Perris Plain in the central portion of the Perris Block of the Peninsular Range Province of southern California. The Perris Plain is a major topographic feature in the area. The surrounding regional geology includes the Peninsular Ranges (Santa Rosa and San Jacinto Mountains) to the east and southeast, the Transverse Ranges (San Gabriel and San Bernardino Mountains)

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to the north and northeast and the Los Angeles Basin and Santa Ana Mountains to the west and southwest. Locally, the subject property is underlain by Quaternary age alluvium and fluvial deposits.

Based on information obtained from the USDA Natural Resources Conservation Service Web Soil Survey online database, the subject property is mapped as Monserate sandy loam, 0 to 5 percent slopes (MmB). The landform is described as alluvial fans, and the parent material is described as alluvium derived from granite. In a typical profile, sandy loam, sandy clay loam, indurated, cemented, and loamy coarse sand are encountered from 0 to 70 inches bgs.

2.4.4 Flood Zone Information

Partner performed a review of the Flood Insurance Rate Map, published by the Federal Emergency Management Agency (FEMA). According to Community Panel Number 06065C2060H dated August 18, 2014, the subject property is mapped in Zone X with an overlay indicating an area of 1% annual chance flood with average depth less than one foot.

A copy of the reviewed flood map is not included in Appendix B of this report.

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3.0 HISTORICAL INFORMATION

Partner obtained historical use information about the subject property from a variety of sources. A chronological listing of the historical data found is summarized in the table below:

Historical Use Information		
Period/Date	**Source**	**Description/Use**
1938-2002	Aerial Photographs, Topographic Maps	Agricultural land/fallow land
1964/65	Building Records, Aerial Photographs	Single-family residence constructed at the property
2006-Present	Aerial Photographs, Building Records, City Directories, Interviews	Current North County Sand & Gravel tenancy

According to available historical sources, the subject property was formerly agricultural land dating back to 1938 (and likely earlier) that included a residence constructed at the subject property in circa 1964/65; appeared to be fallow land or intermittent cultivated land in the 1970s to 2002; a change of zoning occurred in circa 2006 from Rural (R-R) to Industrial (M-H); and occupied by the current tenant from circa 2006 to the present (North County Sand & Gravel). Tenants on the subject property have included private residents and North County Sand & Gravel; no other businesses were identified.

The subject property parcel was historically used for agricultural purposes. There is a potential that agricultural related chemicals such as pesticides, herbicides and fertilizers, may have been applied and stored onsite. No specific areas of concern (i.e. storage buildings, mixing areas, releases, incidents, etc.) related to agricultural chemical storage and use at the subject property have been identified during the course of this assessment. It is expected that during future grading and redevelopment activities that shallow soils containing any residual agricultural chemicals will be either removed or mixed with fill materials and further may be placed beneath structural fill materials that will reduce the potential for direct exposure to residual agricultural chemicals (if any). Based on these reasons, Partner concludes that the possible former use of agricultural chemicals is not expected to represent a significant environmental concern.

Partner reviewed a map titled *Sludge Application Sites in Riverside County* dated March 2002, which depicts the subject property in an area where sludge or biosolids application appears to have occurred, which would have been prior to 2006 when the current tenant started business at the subject property. The property is cross-hatched depicting *Composite Fields*. Biosolids are primarily organic materials produced during wastewater treatment which may be put to beneficial use. An example of such use is the addition of biosolids to soil to supply nutrients and replenish soil organic matter. This is known as land application. Biosolids can be used on agricultural land, forests, rangelands, or on disturbed land in need of reclamation. Application of biosolids is not expected to represent a significant environmental concern, as it may be considered similar to the application of other typical fertilizers, and the subject property is proposed for industrial development. Future development activities are expected to mix native soils with aggregate fill materials with pavement covering a majority of the land area.

No significant environmental concerns were identified in association with the current or former use of the subject property.

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3.1 Aerial Photograph Review

Partner obtained available aerial photographs of the subject property and surrounding area from Environmental Risk Information Services (ERIS) on April 6, 2022. The following was observed on the subject property and adjacent properties during the aerial photograph review:

Date: 1938	***Scale: 1″=500′***
Subject Property:	The property is active cultivated land with crops visible in rows, which appears to be vineyard. No structures are present
North:	The property is active cultivated land with crops visible in rows stretching north to Ethanac Road
South:	The property is active cultivated land with crops visible in rows stretching south to McLaughlin Road
East:	Sherman Road is present as an unimproved road beyond which is cultivated land with crops visible in rows
West:	Cultivated land with crops visible in rows

Date: 1953	***Scale: 1″=500′***
Subject Property:	The property appears to be agricultural land that no longer appears to be vineyard. No structures are apparent
North:	The property appears to be agricultural land that may be fallow. Several vehicles or storage bins are visible on the property
South:	The area appears to be agricultural land with plow lines visible
East:	Sherman Road is present beyond which is agricultural land with plow lines visible and a small trailer or shed
West:	Agricultural land with plow lines visible and a residence with detached garage and sheds fronting Trumble Road

Date: 1962	***Scale: 1″=500′***
Subject Property:	The property appears to be cultivated land or inactive/fallow land. No structures are apparent. Two small vehicles, trailers or storage bins are visible on the north side of the property
North:	The property appears to be fallow land with several small structures visible that may be residences, trailers or storage sheds/bins.
South:	The area appears to be agricultural land or fallow land stretching south to McLaughlin Road
East:	The area appears to be inactive/fallow agricultural land with a small residential lot apparent that includes exterior storage
West:	Agricultural land or fallow land with several rural residences present with detached garages or sheds fronting Trumble Road

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Date: 1967, 1976	*Scale: 1"=500'*
Subject Property:	The property appears to be developed with a residence with what appears to be two or three small detached structures west of the residence that may be storage sheds, trailer or barn. The remaining area appears to be agricultural land that may be fallow with a smooth surface. In 1976, the rear detached buildings are not apparent (possible due to quality of aerial photograph)
North:	The property appears to be agricultural land that may be fallow with a smooth surface. No structures are apparent
South:	The property appears to be agricultural land that may be fallow with a smooth surface stretching south to McLaughlin Road. No structures are apparent
East:	The property appears to be agricultural land that may be fallow with a smooth surface. No structures are apparent
West:	The area appears to be agricultural land with rural residences present along Trumble Road

Date: 1985	*Scale: 1"=500'*
Subject Property:	The property appears to be developed with a residence. The remaining area of the property appears to be disturbed or randomly plowed with some surface vegetation and possible soil piles
North:	No significant changes noted
South:	No significant changes noted
East:	No significant changes noted
West:	No significant changes noted

Date: 1996, 2002	*Scale: 1"=500'*
Subject Property:	No significant changes noted with the exception of the land surface is more even in color and appears relatively flat
North:	No significant changes noted
South:	No significant changes noted
East:	No significant changes noted
West:	No significant changes noted

Date: 2005	*Scale: 1"=500'*
Subject Property:	No significant changes noted with the exception of what appears to be a large pile of gray gravel present near the residence (and entrance to the property), which is likely present to cover the subject property land for North County Sand & Gravel
North:	The property is primarily vacant (unpaved) land with possible early stages of development
South:	No significant changes noted
East:	No significant changes noted
West:	No significant changes noted

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Date:	*2009, 2012, 2014, 2016, 2018, 2020*	*Scale:*	*1″=500′*

Subject Property: The property appears to be occupied by the current tenant North County Sand & Gravel with exterior storage of equipment, storage bins and vehicles apparent. Aggregate bins are visible on the north side of the property along with soil movement and some piles during this time period

North: The site appears to be occupied by an equipment rental company that includes a main warehouse building, storage containers, exterior storage and fueling in ASTs visible approximately 185 feet north of the subject property

South: No significant changes noted

East: No significant changes noted

West: The area includes agricultural land and/or fallow land and rural residences fronting Trumble Road. The residences include rear storage lots likely associated with a small business. Various vehicles, storage bins, trailers, and exterior storage of materials are apparent during this time period

Copies of reviewed aerial photographs are included in Appendix B of this report.

3.2 Fire Insurance Maps

Sanborn map coverage was not available for the subject property.

A copy of the no coverage letter is included in Appendix B of this report.

3.3 City Directories

Partner reviewed historical city directories obtained from ERIS on April 12, 2022 for past names and businesses that were listed for the subject property and adjacent properties. The findings are presented in the following table:

City Directory Search for 26227 Sherman Road (Subject Property)

Year(s)	Occupant Listed
1971	Street not listed
1974	Nick Winfrey
1977	XXXX
1984	XXXX
1986	XXXX
1991	XXXX
1996	XXXX
2000	No listings on Sherman Road
2003	No listings on Sherman Road
2008	North County Sand & Gravel, brick, stone, related materials
2012	North County Sand & Gravel, building materials
2016	North County Sand & Gravel, building materials
2020	North County Sand & Gravel, building materials and lumber retail

* XXXX= An address is listed but is not registered to a tenant or is disconnected.

According to the city directory review, the subject property has been occupied by a resident in 1974 and the current tenant (North County Sand & Gravel) in 2008 to the present. Based on the city directory review, no environmentally sensitive listings were identified for the subject property address.

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City Directory Search for Adjacent Properties on Sherman Road	
Year(s)	**Occupant Listed**
1971	Street not listed
1974	No adjacent listings
1977	No adjacent listings
1984	No adjacent listings
1986	No adjacent listings
1991	No adjacent listings
1996	No adjacent listings
2000	No adjacent listings
2003	No adjacent listings
2008	Pacific Gunite Inc., swimming pool construction; Pacific Ready Mix, lumber, related building materials
2012	Pacific Ready Mix, concrete ready mixed
2016	No adjacent listings
2020	Pro Structural Inc., masonry contractors

According to the city directory review, only listings for the north adjoining property were identified starting in 2008. Based on the city directory review, no environmentally sensitive listings were identified for the adjacent property address.

Copies of reviewed city directories are included in Appendix B of this report.

3.4 Historical Topographic Maps

Partner reviewed historical topographic maps obtained from ERIS on April 7, 2022. The following was observed on the subject property and adjacent properties during the topographic map review:

Date: 1942, 1943	
Subject Property:	The subject property is depicted as vacant land with no apparent use. Sherman Road is depicted as a dirt thoroughfare. No pits, depressions, or bodies of water are depicted on or adjacent to the subject property
North:	The area is depicted as vacant land
South:	The area is depicted as vacant land
East:	Sherman Road is depicted as a dirt thoroughfare beyond which is vacant land
West:	The area is depicted as vacant beyond which is Trumbull Road depicted as unimproved

Date: 1953	
Subject Property:	The subject property is shaded green for agricultural development with the exception of a vacant strip across the center. The shading/texture indicates the property may have been vineyard.
North:	The area is depicted as agricultural land with green shading and a small residence fronting Sherman Road
South:	The area is depicted as agricultural with green shading and textured for vineyard
East:	Sherman Road is depicted beyond which is agricultural land shaded green and textured for vineyard
West:	The area is depicted as agricultural land and vacant with a residence fronting Trumbull Road

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Date:	***1973***
Subject Property:	No significant changes noted with the exception of a residence shaded purple indicating new development from prior mapping
North:	No significant changes noted
South:	No significant changes noted
East:	No significant changes noted
West:	No significant changes noted

Date:	***1979***
Subject Property:	The subject property is depicted as vacant land with no green shading and developed with a residence
North:	The area is depicted as vacant with a small structure present
South:	The area is depicted as vacant with no green shading
East:	The area is depicted as vacant land with no green shading
West:	The area is depicted as vacant with no green shading with additional residences depicted along Trumbull Rd

Date:	***2015, 2018, 2022***
Subject Property:	These maps depict general urban development with no specific structures or uses depicted; only significant topographic features are depicted on the maps
North:	General urban development
South:	General urban development
East:	General urban development
West:	General urban development

Copies of reviewed topographic maps are included in Appendix B of this report.

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4.0 REGULATORY RECORDS REVIEW

4.1 Regulatory Agencies

4.1.1 State Department

Regulatory Agency Data	
Name of Agency:	California Environmental Protection Agency (Cal EPA) California Department of Toxic Substances Control (DTSC)
Point of Contact:	http://www.envirostor.dtsc.ca.gov/public/ http://hwts.dtsc.ca.gov/report_search.cfm?id=5 https://siteportal.calepa.ca.gov
Agency Phone Number:	(800) 728-6942
Date of Contact:	April 2022
Method of Communication:	Online
Summary of Communication:	The EnviroStor database is the DTSC's data management system for tracking cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons to investigate further. No records were identified for the subject property or adjacent properties. The DTSC Hazardous Waste Tracking System (HWTS) was researched for hazardous waste manifest data submitted to the California DTSC. According to a search, the subject property was identified under the name of North County Sand & Gravel Inc., for the years 2006, 2017 and 2018 with a waste code reported as *other organic solids* only. Two separate EPA ID Numbers are reported for North County Sand & Gravel Inc., in connection with the HWTS database, possibly due to change of ownership name. No additional significant information was reported on the HWTS database. The CalEPA Regulated Site Portal and the California Environmental Reporting System (CERS) databases were searched for chemical reporting information, compliance and other regulatory information for the subject property. The CERS includes required Unified Program information among businesses, local governments and the U.S. EPA. All Unified Program regulated businesses and local regulating Unified Program Agencies (UPAs) are required to report and submit mandatory Unified Program information electronically, through CERS or a local UPA portal. Unified Program information required to be submitted and reported electronically to CERS includes but is not limited to facility data regarding hazardous material regulatory activities (such as, hazardous materials business plans, site maps, and chemical inventories), underground and aboveground storage tanks, hazardous waste generation, and inspection, compliance and enforcement actions. North County Sand & Gravel is identified on the CERS database as a chemical storage facility, hazardous waste generator and

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Regulatory Agency Data	
	aboveground petroleum storage tank site under the regulatory oversight of the Riverside County Department of Environmental Health. Chemicals reported at the subject property include diesel fuel, gear oil, hydraulic fluid, motor oil, waste oil, and compressed gases. No outstanding CUPA violations are reported at this time although the property was issued violations in the past which have been corrected.

Copies of pertinent documents are included in Appendix B of this report.

4.1.2 Regional Water Quality Agency

Regulatory Agency Data	
Name of Agency:	Regional Water Quality Control Board (RWQCB) via GeoTracker
Point of Contact:	http://geotracker.waterboards.ca.gov/default.asp
Agency Phone Number:	(916) 341-5791
Date of Contact:	April 2022
Method of Communication:	Online
Summary of Communication:	GeoTracker is the State Water Boards' data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater. GeoTracker contains records for sites that require cleanup, such as Leaking Underground Storage Tank (LUST) Sites, Department of Defense Sites, and Cleanup Program Sites. GeoTracker also contains records for various unregulated projects as well as permitted facilities including: Irrigated Lands, Oil and Gas production, operating Permitted USTs, and Land Disposal Sites. GeoTracker portals retrieve records and view integrated data sets from multiple State Water Board programs and other agencies. No information was identified for the subject property or adjacent properties on the GeoTracker database.

Copies of pertinent documents are included in Appendix B of this report.

4.1.3 Health Department

Regulatory Agency Data	
Name of Agency:	Riverside County Department of Environmental Health (DEH), Hazardous Materials Management Division – CUPA
Point of Contact:	DEHRecordsMgmt@rivco.org
Agency Phone Number:	(951) 358-5055
Date of Contact:	April 2022
Method of Communication:	Email Public Records Request
Summary of Communication:	This agency maintains a file for the subject property, which is reported through the CERS database (see Section 4.1.1 above). Partner has not obtained the physical files as of the date of this report. Based on the CERS information, no violations are reported at this time in connection with the subject property's chemical storage activities.

Copies of pertinent documents are included in Appendix B of this report.

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4.1.4 Fire Department

Regulatory Agency Data	
Name of Agency:	City of Menifee Fire Department (MFD) / Riverside County Fire Department (RCFD)
Point of Contact:	https://cityofmenifeeca.nextrequest.com/requests/21-62 www.rvcfire.org/incidentinformation/ Ms. Jennifer Quinones
Agency Phone Number:	(951) 246-6215 (City); (951) 943-4970 (County)
Date of Contact:	April 2022
Method of Communication:	Email and Online
Summary of Communication:	Partner submitted a public records request to the MFD, and according to a search, no pertinent files were identified. According to Partner's experience with the RCFD, this agency maintains emergency response records and code violation information and does not typically maintain records/files regarding hazardous materials inventory or other environmentally related information. This agency has previously referred Partner to the County CUPA agency (described in Section 4.1.3 above) for pertinent environmental records.

Copies of pertinent documents are included in Appendix B of this report.

4.1.5 Air Pollution Control Agency

Regulatory Agency Data	
Name of Agency:	South Coast Air Quality Management District (AQMD)
Point of Contact:	http://www3.aqmd.gov/webappl/fim/prog/search.aspx
Agency Phone Number:	(909) 396-2000
Date of Contact:	April 2022
Method of Communication:	Online Facility Information Detail (FINDS) database
Summary of Communication:	North County Sand & Gravel maintains multiple air emissions permits for equipment operated at individual off-site mining sites that includes aggregate production/crushing operations. No air emissions permits were identified specifically for the subject property operations.

Copies of pertinent documents are included in Appendix B of this report.

4.1.6 Building Department

Regulatory Agency Data	
Name of Agency:	City of Menifee Building Department (MBD) and Riverside County Building Department (RCBD)
Point of Contact:	https://cityofmenifeeca.nextrequest.com/ Records and Information Management / records@rivco.org https://rivcoplus.org/EnerGov_Prod/SelfService#/search
Agency Phone Number:	(951) 672-6777 (City); (951) 955-2017 (County)
Date of Contact:	April 2022
Method of Communication:	Email Public Records Request and Online
Summary of Communication:	Partner submitted a public records request to the MBD for building permit records issued to the subject property, and no permits were

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Regulatory Agency Data	
	identified. Based on the incorporation date of the City of Menifee (2008), Partner contacted the RCBD for additional building permit information. According to an online search through the Riverside County *Plus Online* portal, several building permits were identified for a residence with attached garage dated 1964 (owner listed as Mary Newman); natural gas piping dated 1964; an electric meter and water piping dated 1964; a leach line dated 1973 (owner listed as Willis); and a garden wall 6'x500 LF dated 2006 (owner Mike LaPaglia). No other significant information was identified.

Copies of pertinent documents are included in Appendix B of this report.

4.1.7 Planning Department

Regulatory Agency Data	
Name of Agency:	City of Menifee Planning Department (MPD)
Point of Contact:	https://www.cityofmenifee.us/147/City-Maps
Agency Phone Number:	(951) 672-6777
Date of Contact:	April 2022
Method of Communication:	Online
Summary of Communication:	According to records reviewed, the subject property is zoned Menifee North Specific Plan and HI (Heavy Industrial/Manufacturing) by the City of Menifee. Partner did not receive additional planning documents from the MPD as of the date of this report. According to an online search through the Riverside County *Plus Online* portal, several documents are reported in connection with the subject property's address including a change of zoning designation from Rural (R-R) to Industrial (M-H) in 2006. The change of zoning designation appears to have included a biological report, CEQA Analysis and Conditional Use Permit. The applicant for the zone change is listed as North County Sand and Gravel Inc.

Copies of pertinent documents are included in Appendix B of this report.

4.1.8 Oil & Gas Exploration

Regulatory Agency Data	
Name of Agency:	California Department of Conservation (DOC), Geologic Energy Management Division (CalGEM)
Point of Contact:	https://maps.conservation.ca.gov/doggr/wellfinder/#openModal/-118.94276/37.12009/6
Agency Phone Number:	(916) 322-1080
Date of Contact:	April 2022
Method of Communication:	Online Well Finder
Summary of Communication:	According to CalGEM, no oil or gas wells are located on or in the subject property vicinity. Also, the subject property is not located within a designated oil field.

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Copies of pertinent documents are included in Appendix B of this report.

4.1.9 Assessor's Office

Regulatory Agency Data	
Name of Agency:	Riverside County Assessor (RCA)
Point of Contact:	https://www.asrclkrec.com/public-access-services
Agency Phone Number:	(951) 955-6200
Date of Contact:	April 2022
Method of Communication:	Online
Summary of Communication:	According to the RCA and other reviewed information, the subject property is identified as follows:

APN	Address	Legal Description	Current Owner
331-110-023	26227 Sherman Road	1.16 Acres in Por Lot 68 MB 011/038 Trumble Farms	Michael J. LaPaglia and Tracy F. LaPaglia, Husband and Wife as Joint Tenants, as of 2006
331-110-038	26227 Sherman Road	4.77 Acres M/L (More or Less) in Lot 60 MB 011/038 Trumble Farms	North County Sand and Gravel, Inc., as of 2004
331-110-039	26227 Sherman Road	6.07 Acres M/L in Por Lot 62 and Lot 61 MB 011/038 Trumble Farms	North County Sand and Gravel, Inc., as of 2004

Copies of pertinent documents are included in Appendix B of this report.

4.1.10 Other Agency

Regulatory Agency Data	
Name of Agency:	State Solid Waste Information System (SWIS)
Point of Contact:	https://www2.calrecycle.ca.gov/SolidWaste/Site/Search
Agency Phone Number:	(916) 322-4027 (main)
Date of Contact:	April 2022
Method of Communication:	Online
Summary of Communication:	The Solid Waste Information System (SWIS) database contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The types of solid waste activities found in this database include landfills, transfer stations, composting sites, in-vessel digestion sites, engineered municipal solid waste conversion facilities, transformation facilities, and closed disposal sites. According to a search, the subject property is not identified as a past or present solid waste facility, landfill or other waste uses as described above nor are adjacent properties.

Copies of pertinent documents are included in Appendix B of this report.

4.2 Mapped Database Records Search

Information from standard federal, state, county, and city environmental record sources was provided by Environmental Risk Information Services (ERIS). Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. The information contained in this report was compiled from publicly available sources and the locations of the sites are plotted utilizing a geographic information system, which geocodes the site addresses. The accuracy of the geocoded locations is approximately +/-300 feet.

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Using the ASTM definition of migration, Partner considers the migration of hazardous substances or petroleum products in any form onto the subject property during the evaluation of each site listed on the radius report, which includes solid, liquid, and vapor.

4.2.1 Regulatory Database Summary

Radius Report Data				
Database	**Search Radius (mile)**	**Subject Property**	**Adjacent Properties**	**Sites of Concern**
Federal NPL or Delisted NPL Site	1.00	N	N	N
Federal CERCLIS Site	0.50	N	N	N
Federal CERCLIS-NFRAP Site	0.50	N	N	N
Federal RCRA CORRACTS Facility	1.00	N	N	N
Federal RCRA TSDF Facility	0.50	N	N	N
Federal RCRA Generators Site (LQG, SQG, CESQG)	0.25	N	N	N
Federal IC/EC Registries	0.50	N	N	N
Federal ERNS Site	Subject Property	N	N	N
State/Tribal Equivalent NPL	1.00	N	N	N
State/Tribal Equivalent CERCLIS	1.00	N	N	N
State/Tribal Landfill/Solid Waste Disposal Site	0.50	N	N	N
State/Tribal Leaking Storage Tank Site	0.50	N	N	N
State/Tribal Registered Storage Tank Sites (UST/AST)	0.25	N	N	N
State/Tribal Voluntary Cleanup Sites (VCP)	0.50	N	N	N
State/Tribal Spills	0.125	N	N	N
Federal Brownfield Sites	0.50	N	N	N
State Brownfield Sites	0.50	N	N	N
Mines Master Index File (MIF)	Subject Project	**Y**	NA	NA

4.2.2 Subject Property Listings

The subject property is identified in the regulatory database report, as discussed below:

- North County Sand & Gravel, Inc., is listed on the Mines Master Index File (MIF) which contains mine identification numbers issued by the Department of Labor Mine Safety and Health Administration (MSHA) for mines active or opened since 1971. Note that addresses may or may not correspond with the physical location of the mine itself. North County Sand & Gravel is listed on the Mines database for three mine sites, each of which has a status of abandoned. Multiple violations are reported for each of the mining sites dating back to circa 2002. The main office for the business is located at the subject property. Based on the nature of the listings, which pertain to off-site locations, they are not expected to represent a significant environmental concern.
- North County Sand & Gravel, 26227 Sherman Road, is listed on the CERS database for aboveground petroleum storage, hazardous waste generator and chemical storage facility under the regulatory oversight of the Riverside County DEH (see Section 4.1.1). North County Sand & Gravel is also listed on the Delisted Hazardous Waste Sites database, described as Delisted

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Environmental Reporting System (CERS). North County Sand and Gravel is listed on local Riverside County databases which cross references the CERS database for hazardous materials disclosure and hazardous waste activity at the subject property. Limited information is provided on the county databases.

- North County Sand & Gravel, 26227 Sherman Road, is listed on the Hazardous Waste Manifest Data (HazNet) database for hazardous waste activity (see Section 4.1.1). Two listings are reported on the HazNet database dated 2006 and 2007 each of which has a distinct EPA ID number. The 2006 listing has a waste code for other organic solids only with no waste codes reported for 2007. No additional significant information is reported through this database.
- North County Sand and Gravel is listed on the FINDS/FRS (Facility Index/Facility Registry Service) database for RCRA a CERS reporting, which is a cross reference to other previously discussed database listings. North County Sand and Gravel is listed as a RCRA Non-Generator dated 2007. As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

  Based on the nature of the database listings, visual observations of the subject property, and lack of reported CUPA violations for the property at this time, the database listings are not expected to represent a significant environmental concern.

4.2.3 Adjacent Property Listings

The adjacent property to the north is identified in the regulatory database report, as discussed below:

- The adjacent property to the north at 26105 Sherman Road is listed in the regulatory database report for past and/or present hazardous waste activity under several business names including: Pro Structural Inc. (2019), Summit Equipment Rentals (2018), JS Cole Company (2014), Pokrajac Corporation (2013), Romoland Commercial Investors (2011), Pacific Ready-Mix Inc. (2009/2010), and Prestige Gunite of California Inc. (2006/2007). Each of the businesses were issued a unique EPA ID Number. According to the waste codes reported, only *other organic solids* and *unspecified oil containing waste* were reported; no solvent waste was reported. In addition, during the site visit Partner observed two ASTs which appeared to be for fueling purposes based on the nature of the business. The ASTs are situated approximately 185 feet north of the subject property. Based on the nature of the listings and lack of reported information indicating a release occurred or that an environmental condition exists at this location, the past and present businesses do not appear to represent a significant environmental concern, and it is unlikely that a regulatory file review for this site would alter the findings of this assessment.

Based on the findings, vapor migration is not expected to represent a significant environmental concern at this time.

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4.2.4 Sites of Concern Listings

No sites of concern are identified in the regulatory database report. In addition, no groundwater contamination plumes are mapped in the subject property area.

Based on the findings, vapor migration is not expected to represent a significant environmental concern at this time.

4.2.5 Orphan Listings

The subject property under the name of North County Sand & Gravel Inc. is listed on the unplottable (orphan) database for five off-site mine sites, which do not pertain to the subject property. No other orphan listings are identified.

A copy of the regulatory database report is included in Appendix C of this report.

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5.0 USER PROVIDED INFORMATION AND INTERVIEWS

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *Brownfields Amendments*), the *User* must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. The *User* should provide the following information to the *environmental professional*. Failure to provide this information could result in a determination that *all appropriate inquiries* is not complete. The *User* is asked to provide information or knowledge of the following:

- Review Title and Judicial Records for Environmental Liens and AULs
- Specialized Knowledge or Experience of the User
- Actual Knowledge of the User
- Reason for Significantly Lower Purchase Price
- Commonly Known or *Reasonably Ascertainable* information
- Degree of Obviousness
- Reason for Preparation of this Phase I ESA

Fulfillment of these user responsibilities is key to qualification for the identified defenses to CERCLA liability. Partner requested our Client to provide information to satisfy User Responsibilities as identified in Section 6 of the ASTM guidance.

Pursuant to ASTM E1527-13, Partner requested the following site information from Core5 Industrial Partners (User of this report).

User Responsibilities				
Item	**Provided By User**	**Not Provided By User**	**Discussed Below**	**Does Not Apply**
AAI User Questionnaire		**X**	**X**	
Title Records, Environmental Liens, and AULs	**X**		**X**	
Specialized Knowledge	**X**		**X**	
Actual Knowledge	**X**		**X**	
Valuation Reduction for Environmental Issues	**X**		**X**	
Identification of Key Site Manager	**Section 5.1.3**		**X**	
Reason for Performing Phase I ESA	**Section 1.1**		**X**	
Prior Environmental Reports		**X**	**X**	
Other	**X**		**X**	

5.1 Interviews

5.1.1 Interview with Owner

Mr. Michael LaPaglia, subject property owner representative, was not aware of pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; pending, threatened, or past administrative proceedings relevant to hazardous substances or

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petroleum products in, on, or from the subject property; or notices from a governmental entity regarding possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

Mr. LaPaglia further stated that there are no USTs, clarifiers, oil/water separators, groundwater monitoring wells, or drinking water wells on the subject property to the best of his knowledge. Mr. LaPaglia was not aware of any environmental concerns associated with the subject property at this time.

5.1.2 Interview with Report User

Core5 Industrial Partners did not report known environmental concerns associated with the subject property at this time. Please refer to Section 5.2 below for information requested from the Report User.

5.1.3 Interview with Key Site Manager

Mr. Michael LaPaglia also acted as key site manager (see Section 5.1.1 above).

5.1.4 Interviews with Past Owners, Operators and Occupants

Interviews with past owners, operators and occupants were not conducted since information regarding the potential for contamination at the subject property was obtained from other sources.

5.1.5 Interview with Others

As the subject property is not an abandoned property as defined in ASTM 1527-13, interview with others were not performed.

5.2 User Provided Information

5.2.1 Title Records, Environmental Liens, and Activity and Use Limitations (AULs)

At the request of the User, Partner contracted AFX Research LLC (AFX) to perform a limited environmental lien and AUL search for the subject property. No environmental liens or AULs were identified for the subject property.

Copies of pertinent pages are included in Appendix B of this report.

5.2.2 Specialized Knowledge

The User did not have specialized knowledge of environmental conditions associated with the subject property at the time of the assessment.

5.2.3 Actual Knowledge of the User

The User was not aware of environmental liens and/or AULs encumbering the subject property or in connection with the subject property at the time of the assessment.

5.2.4 Valuation Reduction for Environmental Issues

No knowledge of valuation reductions associated with the subject property was provided by the User at the time of the assessment.

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5.2.5 Commonly Known or Reasonably Ascertainable Information

The User provided readily available information that is commonly known or *reasonably ascertainable* within the local community about the subject property at the time of the assessment.

5.2.6 Previous Reports and Other Provided Documentation

No previous environmental reports or other pertinent documentation was provided to Partner for review during the course of this assessment.

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6.0 SITE RECONNAISSANCE

The weather at the time of the site visit was sunny and clear. Refer to Section 1.5 for limitations encountered during the field reconnaissance and Sections 2.1 and 2.2 for subject property operations. The table below provides the site assessment details:

Site Assessment Data	
Site Assessment Performed By:	Margaret Thomas
Site Assessment Conducted On:	April 14, 2022

The table below provides the subject property personnel interviewed during the field reconnaissance:

Site Visit Personnel for 26227 Sherman Road (Subject Property)			
Name	**Title/Role**	**Contact Number**	**Site Walk* Yes/No**
Mr. Michael LaPaglia	Owner Representative	(951) 928-2881	Yes
Mr. Jon Kelly	User/Client Representative	jkelly@c5ip.com	No

* Accompanied Partner during the field reconnaissance activities and provided information pertaining to the current operations and maintenance of the subject property

No significant environmental concerns were identified during the onsite reconnaissance.

6.1 General Site Characteristics

6.1.1 Solid Waste Disposal

Solid waste generated at the subject property is disposed of in commercial dumpsters located on the subject property. An independent solid waste disposal contractor, Waste Management, removes solid waste from the subject property. According to property personnel, only allowable/approved trash is collected in the on-site solid waste dumpsters. No evidence of illegal dumping of solid waste was observed during the Partner site reconnaissance, although some discarded inert household items were observed in Sherman Road adjacent to the subject property.

6.1.2 Sewage Discharge and Disposal

Sanitary discharges from the subject property are directed to an onsite septic system, as further discussed in Section 6.1.7.

6.1.3 Surface Water Drainage

Storm water is removed from the subject property primarily through ground infiltration or by sheet flow action across paved surfaces towards the public right of way. On-site storm water drains were not observed.

The subject property does not appear to be a designated wetland area, based on information obtained from the United States Fish & Wildlife Service, National Wetlands Inventory database; however, a comprehensive wetlands survey would be required in order to formally determine actual wetlands on the subject property. No surface impoundments, wetlands, natural catch basins, settling ponds, or lagoons are located on the subject property. No drywells were identified on the subject property.

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6.1.4 Source of Heating and Cooling

Heating and cooling systems as well as domestic hot water equipment are fueled by electricity and/or natural gas provided by Southern California Edison (SCE) and Southern California Gas Company. The mechanical system is comprised of a split system with an exterior ground level condenser unit and interior furnace. Hot water is provided by an individual hot water heater.

6.1.5 Wells and Cisterns

No aboveground evidence of wells or cisterns was observed or reported during the site reconnaissance. However, based on the age of site developments (1960s) it is possible the residence previously utilized a well for drinking water, but that was not confirmed.

6.1.6 Wastewater

Domestic wastewater generated at the subject property is disposed by means of a septic system. No industrial process is currently performed at the subject property.

6.1.7 Septic Systems

The office building (residential house) on the subject property is connected to a septic tank. Based on the apparent use, the septic system is not expected to represent a significant environmental concern.

6.1.8 Additional Site Observations

It appears that a large amount of aggregate or sand/gravel piles are present around the property (over native soils) from general business operations over time or from general leveling of the ground or from other sources. Much of the sand/gravel has been spread out with the exception of a large soil mound present along the west side of the property that is covered with weeds or grass. The surface soils/piles may need to be evaluated for potential impacts during site redevelopment, although, no staining, odors or other concerns were observed, and no environmental concerns were reported by the owner regarding the piles of aggregate and soil around the property.

No additional general site characteristics were observed during the site reconnaissance.

6.2 Potential Environmental Hazards

6.2.1 Hazardous Substances and Petroleum Products Used or Stored at the Subject Property

Partner identified hazardous substances used, stored, and/or generated on the subject property as noted in the following table. Hazardous substances are associated with general vehicle and machinery maintenance and repair and fueling of that equipment. Partner did not receive an inventory of all hazardous substances stored at the subject property.

Hazardous Substances and/or Petroleum Products Noted Onsite

Substance	Container Size	Location	Nature of Use	Disposal Method
Diesel fuel	1x7,000-gal AST	Maintenance area	Fueling equipment	None
Diesel fuel, red dye	1x1,000-gal AST	North side of property	Fueling off-road equipment	None
Waste oil	1x500-gal AST	Maintenance area	Equipment	Asbury Environmental

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Hazardous Substances and/or Petroleum Products Noted Onsite				
Substance	**Container Size**	**Location**	**Nature of Use**	**Disposal Method**
			maintenance	
Waste oil	5x55-gal drum	Maintenance area	Equipment maintenance	Asbury Environmental
Motor oil	6x250-gal or less ASTs	Maintenance area	Equipment maintenance	None
Motor oil	3x55-gal drum	Maintenance area	Equipment maintenance	None
Used oil filters	4x55-gal drum	Maintenance area	Equipment maintenance	Asbury Environmental
DEF	1x350-gal tote	Maintenance area	Equipment maintenance	None
Gear oil	5x5-gal container	Maintenance area, inside container	Equipment maintenance	None
Hydraulic oil	5x5-gal container	Maintenance area, inside container	Equipment maintenance	None
Compressed gases	7 cylinders	Maintenance area	Welding	none

The materials were found to be labeled and appropriately stored at the time of the assessment with no signs of significant leaks, stains, or spills. Secondary containment is provided where necessary.

Additional small quantities of general vehicle maintenance products were observed on shelves within a shipping container that included windshield wiper fluid, antifreeze, spray cans, caulking, and other miscellaneous products. Several shipping containers are present at the property used for general storage of parts, equipment, and miscellaneous items.

One empty parts washer was observed on the concrete slab with a hazardous waste label. Parts washers typically utilize some type of solvent. Limited information was provided about the parts washer. Also, a large awning structure is present on the east side of the property that is used for spray painting of equipment and vehicles on a limited basis. No overspray was observed on the ground. The spray enclosure is a few years old and used infrequently.

Several empty ASTs, miscellaneous idle equipment, parts, motors, pallets, large tires, piping, containers, and other miscellaneous items are stored on the exterior of the property in various locations. No staining or other concerns were noted around the items.

Based on the nature of use, presence of secondary containment, and lack of violations on-file with the local CUPA agency, hazardous substances used/stored at the subject property are not expected to represent a significant environmental concern at this time.

6.2.2 Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)

No evidence of current or former USTs was observed or reported during the site reconnaissance.

Partner observed several a ASTs for the storage of diesel fuel, motor oil and waste oil on the subject property. The ASTs are located on the general north side of the property in the main maintenance area.

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The ASTs were equipped with secondary containment or have internal secondary containment. No significant staining, leaks or spills were noted in the vicinity of the ASTs, and no releases have been reported. Minor diesel staining was observed on the AST due to drips from the nozzle; however, no staining was observed beneath the AST.

6.2.3 Evidence of Releases

No significant spills, stains or other indications that a surficial release has occurred at the subject property were observed.

6.2.4 Polychlorinated Biphenyls (PCBs)

No potential PCB-containing equipment (transformers, oil-filled switches, hoists, lifts, dock levelers, hydraulic elevators, etc.) was observed on the subject property during Partner's reconnaissance.

6.2.5 Strong, Pungent or Noxious Odors

No strong, pungent or noxious odors were evident during the site reconnaissance.

6.2.6 Pools of Liquid

No pools of liquid were observed on the subject property during the site reconnaissance.

6.2.7 Drains, Sumps and Clarifiers

No drains, sumps, or clarifiers were observed on the subject property during the site reconnaissance.

6.2.8 Pits, Ponds and Lagoons

No pits, ponds or lagoons were observed on the subject property.

6.2.9 Stressed Vegetation

No stressed vegetation was observed on the subject property.

6.2.10 Additional Potential Environmental Hazards

No additional environmental hazards, including landfill activities or radiological hazards, were observed.

6.3 Non-ASTM Services

6.3.1 Asbestos-Containing Materials (ACMs)

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.1101 requires certain construction materials to be presumed to contain asbestos, for purposes of this regulation. All thermal system insulation (TSI), surfacing material, and asphalt/vinyl flooring that are present in a building that have not been appropriately tested are "presumed asbestos-containing material" (PACM).

The subject property building was constructed in 1964/65. A limited, visual evaluation of accessible areas for the presence of suspect ACMs at the subject property was conducted. The objective of this visual survey was to note the presence and condition of suspect ACM observed. Please refer to the table below for identified suspect ACMs:

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Suspect ACMs

Suspect ACM	Location	Friable Yes/No	Physical Condition
Drywall Systems	Building Interior	No	Good
Flooring Materials	Building Interior	No	Good
Flooring Mastic	Building Interior	No	Good
Roofing Materials	Building Exterior	No	Good
Stucco	Building Exterior	No	Good

The limited visual survey consisted of noting observable materials (materials which were readily accessible and visible during the course of the site reconnaissance) that are commonly known to potentially contain asbestos. This activity was not designed to discover all sources of suspect ACM, PACM, or asbestos at the site; or to comply with any regulations and/or laws relative to planned disturbance of building materials such as renovation or demolition, or any other regulatory purpose. Rather, it is intended to give the User an indication if significant (significant due to quantity, accessibility, or condition) potential sources of ACM or PACM are present at the subject property. Additional sampling, assessment, and evaluation will be warranted for any other use.

According to the US EPA, ACM and PACM that is intact and in good condition can, in general, be managed safely in-place under an Operations and Maintenance (O&M) Program until removal is dictated by renovation, demolition, or deteriorating material condition. Prior to disturbance of the building materials within this facility, an ACM survey is recommended.

6.3.2 Lead-Based Paint (LBP)

Lead is a highly toxic metal that affects virtually every system of the body. LBP is defined as any paint, varnish, stain, or other applied coating that has 1 mg/cm^2 (or 5,000 ug/g or 0.5% by weight) or more of lead. Congress passed the Residential Lead-Based Paint Hazard Reduction Act of 1992, also known as "Title X", to protect families from exposure to lead from paint, dust, and soil. Under Section 1017 of Title X, intact LBP on most walls and ceilings is not considered a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated. Further, Section 1018 of this law directed the Housing and Urban Development (HUD) and the US EPA to require the disclosure of known information on LBP and LBP hazards before the sale or lease of most housing built before 1978.

Based on the age of the subject property building (pre-1978), there is a potential that LBP is present. Interior and exterior painted surfaces were observed in good condition and therefore not expected to represent a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated. Based on the commercial nature of the building at this time, LBP is not considered a significant environmental concern.

6.3.3 Radon

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, according to the table below:

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EPA Radon Zones		
EPA Zones	**Average Predicted Radon Levels**	**Potential**
Zone 1	Exceed 4.0 pCi/L	Highest
Zone 2	Between 2.0 and 4.0 pCi/L	Moderate
Zone 3	Less than 2.0 pCi/L	Low

It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the US EPA recommends site-specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Radon sampling was not conducted as part of this assessment. Review of the US EPA Map of Radon Zones places the subject property in Zone 2. Based upon the radon zone classification and industrial land use, radon is not considered to be a significant environmental concern.

6.3.4 Lead in Drinking Water

According to available information, drinking water is supplied to the subject property and vicinity by the Eastern Municipal Water District (EMWD) that uses several sources of water including surface water from the Colorado River and the State Water Project (SWP) as well as local groundwater. According to the 2020 Annual Water Quality Report, water supplied to the subject property area is in compliance with all State and Federal regulations pertaining to drinking water standards, including lead and copper. Water sampling was not conducted to verify water quality.

6.3.5 Mold

Molds are microscopic organisms found virtually everywhere, indoors and outdoors. Mold will grow and multiply under the right conditions, needing only sufficient moisture (e.g.in the form of very high humidity, condensation, or water from a leaking pipe, etc.) and organic material (e.g., ceiling tile, drywall, paper, or natural fiber carpet padding).

Partner observed accessible, interior areas for the subject property building for significant evidence of mold growth with the exceptions detailed in Section 1.5 of this report; however, this ESA should not be used as a mold survey or inspection. Additionally, this limited assessment was not designed to assess all areas of potential mold growth that may be affected by mold growth on the subject property. Rather, it is intended to give the client an indication as to whether or not conspicuous (based on observed areas) mold growth is present at the subject property. This evaluation did not include a review of pipe chases, mechanical systems, or areas behind enclosed walls and ceilings.

No obvious indications of water damage or mold growth were observed during Partner's visual assessment.

6.4 Adjacent Property Reconnaissance

The adjacent property reconnaissance consisted of observing the adjacent properties from the subject property premises.

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6.4.1 Hazardous Substances and Petroleum Products Used or Stored at the Site

The adjacent property to the north was observed to be occupied by Summit Equipment Rentals where two ASTs were observed that are most likely associated with fueling of equipment; therefore, the tanks are expected to contain diesel fuel. The database report did not report environmental concerns or releases at this location at this time.

No additional items of significant environmental concern were identified on the adjacent properties during the site assessment, including USTs, evidence of releases, PCBs, strong or noxious odors, pools of liquids, sumps or clarifiers, pits or lagoons, stressed vegetation, or other potential environmental hazards.

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7.0 FINDINGS AND CONCLUSIONS

Findings

A *REC* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment.

- Partner did not identify RECs during the course of this assessment.

A *CREC* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

- Partner did not identify CRECs during the course of this assessment.

A *HREC* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

- Partner did not identify HRECs during the course of this assessment.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion.

- The subject property is currently used as a storage and maintenance yard in connection with surface mining operations dating back to circa 2006. Mining operations are conducted at off-site locations. During the site visit, vehicle maintenance activities were observed on the north side on the property on a concrete slab. Hazardous waste is generated that includes primarily waste oil stored in one 500-gallon capacity AST and 55-gallon drums. Additional hazardous substances include diesel fuel (stored in two ASTs: one 7,000-gallon and one 1,000-gallon capacity tanks), fresh motor oil, DEF (diesel exhaust fluid), gear oil, hydraulic fluid, antifreeze, and other typical automotive fluids and cleaners. Liquid hazardous waste drums are situated on secondary containment basins, and the 7,000-gallon AST is situated within a concrete secondary containment structure. The smaller diesel tank is situated on a metal stand over gravel and appears to have internal secondary containment; however, that was not confirmed. No significant staining or leaks were observed around the maintenance or fueling areas. Based on visual observations and regulatory compliance information that reports no outstanding violations at this time, vehicle maintenance and fueling operations are considered an environmental issue.
- Due to the age of the subject property building (1964/65), there is a potential that asbestos-containing materials (ACMs) are present. Overall, suspect ACMs were observed in good condition and do not pose a health and safety concern to the occupants of the subject property at this time. According to the United States Environmental Protection Agency (EPA) guidelines, suspect materials that are intact and in good condition can, in general, be managed safely in-place under an Operations and Maintenance (O&M) Program until removal is dictated by renovation,

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demolition, or deteriorating material condition. Prior to disturbance of the building materials within the building, an ACM survey is recommended.

Conclusions, Opinions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 26227 Sherman Road in Menifee, Riverside County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property; however, environmental issues were identified. Based on the conclusions of this assessment, Partner recommends no further investigations are necessary.

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8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Partner has performed a Phase I Environmental Site Assessment of the property located at 26227 Sherman Road in Menifee, Riverside County, California in conformance with the scope and limitations of the protocol and the limitations stated earlier in this report. Exceptions to or deletions from this protocol are discussed earlier in this report.

By signing below, Partner declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR §312. Partner has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. Partner has developed and performed *All Appropriate Inquiries* in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:

Margaret Thomas
Environmental Professional

Reviewed By:

Janet Annan
Senior Reviewer

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9.0 REFERENCES

Reference Documents

American Society for Testing and Materials, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation: E1527-13.

Environmental Risk Information Services (ERIS), Radius Report, April 2022

Federal Emergency Management Agency, Federal Insurance Administration, National Flood Insurance Program, Flood Insurance Map, accessed via internet, April 2022

United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, accessed via the internet, April 2022

United States Environmental Protection Agency, EPA Map of Radon Zones (Document EPA-402-R-93-071), accessed via the internet, April 2022

United States Geological Survey, accessed via the Internet, April 2022

United States Geological Survey Topographic Maps, 7.5-minute series, ERIS Topographic Maps, April 2022

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FIGURES

1 SITE LOCATION MAP
2 SITE PLAN
3 TOPOGRAPHIC MAP

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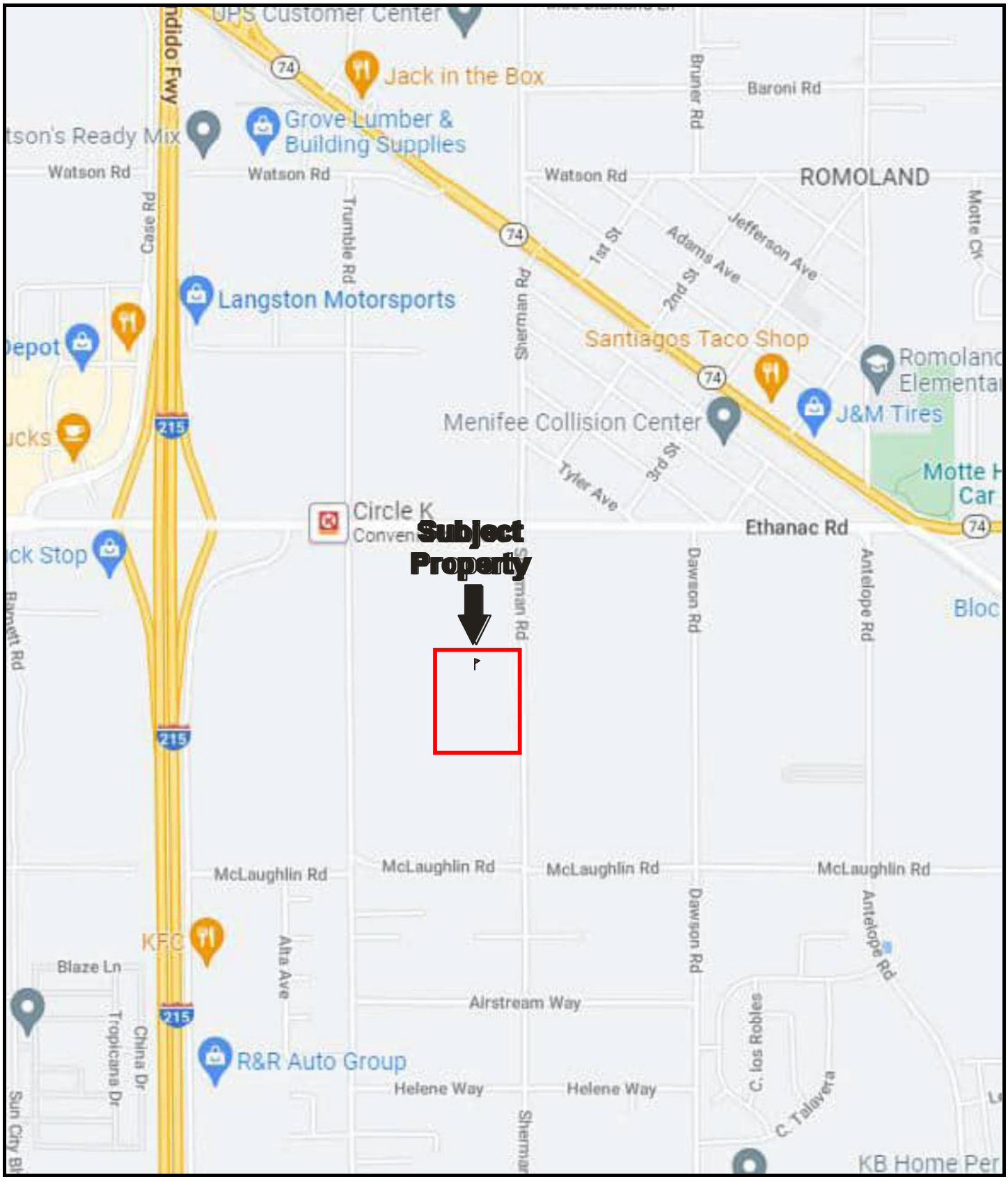

N

Drawing Not To Scale

KEY:
Subject Property

FIGURE 1: SITE LOCATION MAP
Project No. 22-366047.1

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FIGURE 2: SITE PLAN
Project No. 22-366047.1

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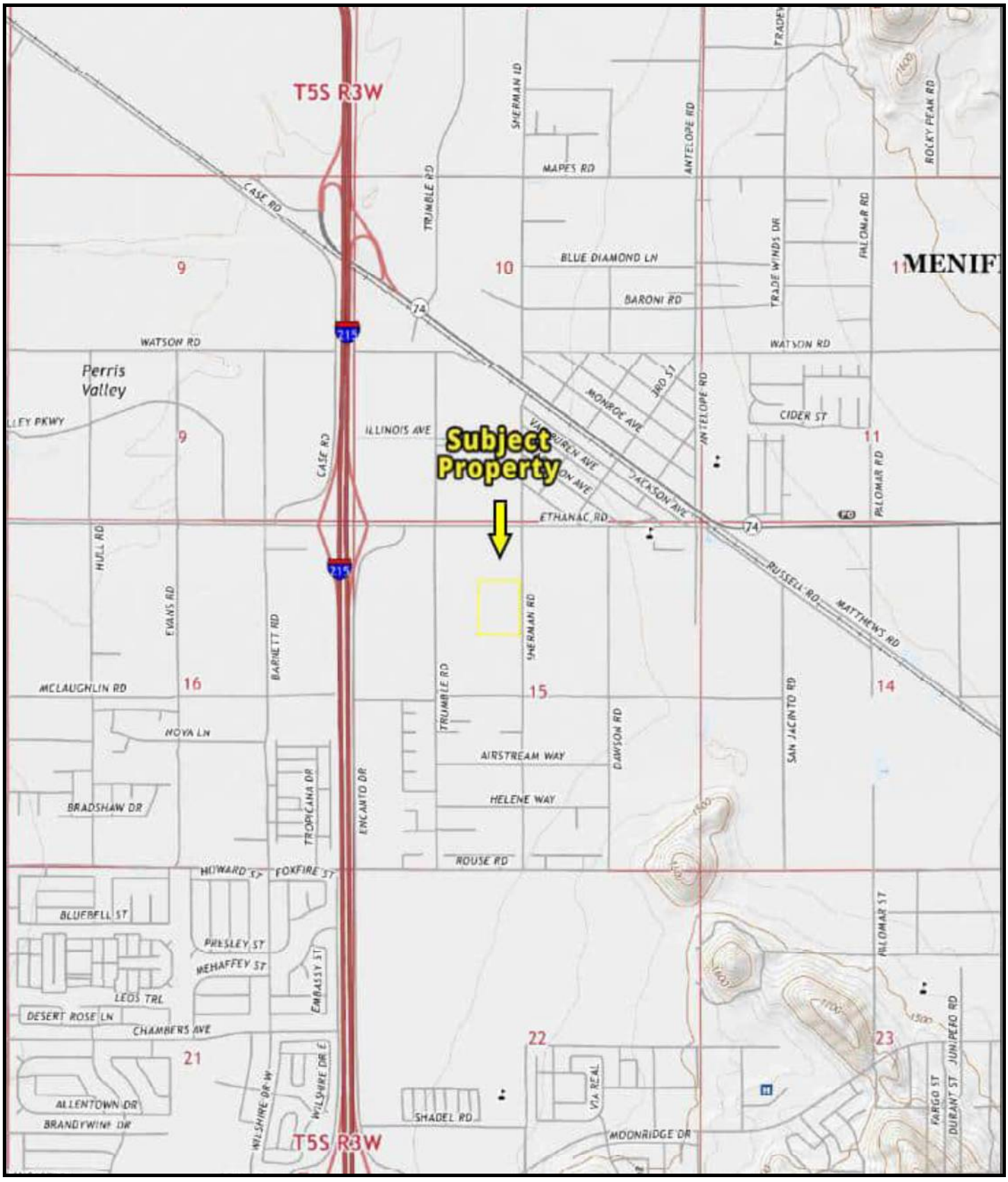

N

USGS 7.5 Minute *Romoland, California* Quadrangle
Created: 2018

KEY:
Subject Property

FIGURE 3: TOPOGRAPHIC MAP
Project No. 22-366047.1

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APPENDIX A: SITE PHOTOGRAPHS

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1. View of the office at the subject property looking west from Sherman Road

2. View of the rear side of the office at the subject property looking east

3. View of the entrance to the subject property looking west from Sherman Road

4. View looking south on Sherman Road along the subject property

5. View of the subject property looking west

6. View of the maintenance area looking southwest

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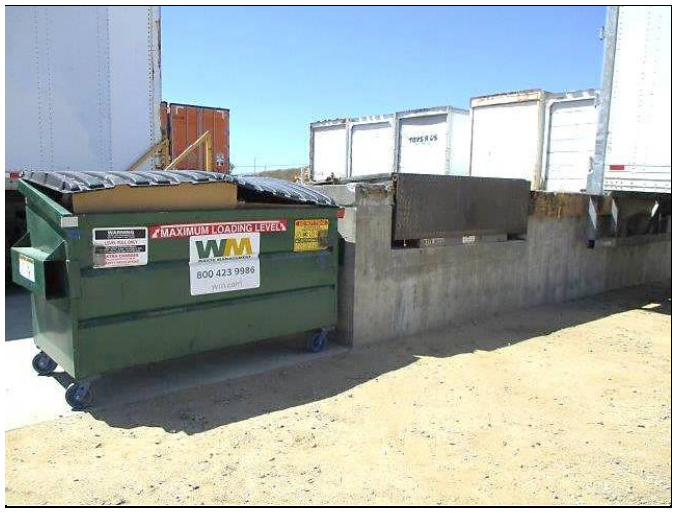
7. View of aggregate bins along the north side of the property looking west

8. View of typical aggregate bin looking north

9. View of open loading dock looking north



10. View of loading dock and leveler looking southwest

11. View of the subject property and soil mound looking northwest

12. View of subject property surface looking northeast across the property

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13. View of storage bins stored at the southwest corner of the property (sublease)

14. View of gravel pile at the subject property looking south

15. View looking west across the property from the south side of the property

16. View of the east side of the subject property looking north

17. View of mining equipment stored at the subject property looking west

18. View of general storage of equipment and materials

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19. View of a paint spray awning

20. View of trucks parked at the subject property looking northwest

21. View of pile of asphalt at the subject property

22. View of storage containers at the subject property (sublease)

23. View of idle equipment and parts stored at the property (ASTs are empty) looking west

24. View of parts and equipment stored at the property

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25. View of items stored at the subject property looking west

26. View of items stored at the subject property looking west

27. View of ASTs of motor oil and drums of used oil filters

28. View of waste oil AST on secondary containment

29. View of drums of waste materials on secondary containment

30. View of tote of DEF

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31. View of 7,000-gallon AST containing diesel fuel in secondary containment structure looking west

32. View inside the secondary containment structure as shown in Photo #31

33. View of idle parts washer

34. View of gear oil and other hazardous substances stored in a shipping container

35. View of motor oil ASTs stored in a shipping container in the maintenance area

36. View of compressed gases

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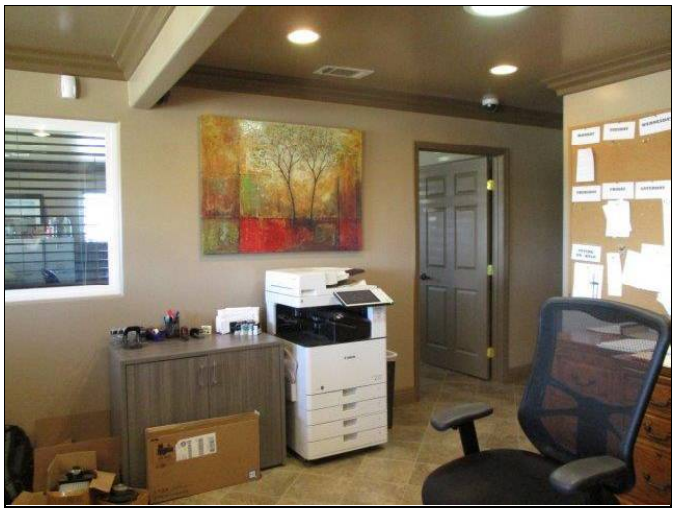
37. View of 1,000-gallon diesel AST looking west

38. View of 1,000-gallon diesel AST looking northeast



39. View of the office area

40. View of septic tank located on the west side of the office building

41. View of the adjacent land to the west looking west (typical of surrounding agricultural land)

42. View of adjacent Summit Equipment Rentals property looking west from Sherman Road

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APPENDIX B: HISTORICAL/REGULATORY DOCUMENTATION

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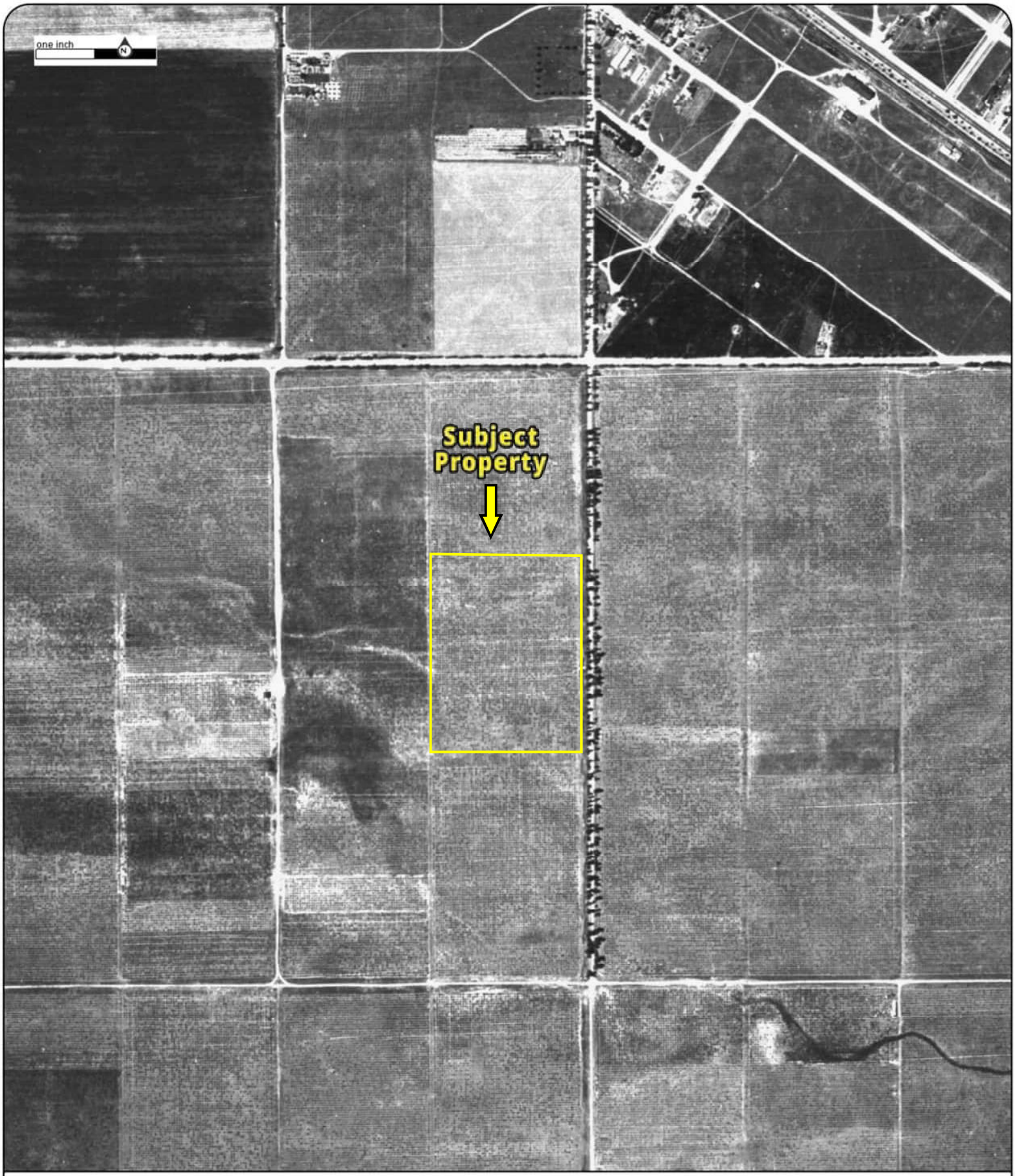

Year: 1938
Source: ASCS
Scale: 1" = 500'
Comment:

Address: 26227 Sherman Road, MENIFEE, CA
Approx Center: -117.18157167,33.73956519

Order No: 22040600526

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Year: 1953
Source: ASCS
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Year: 1962
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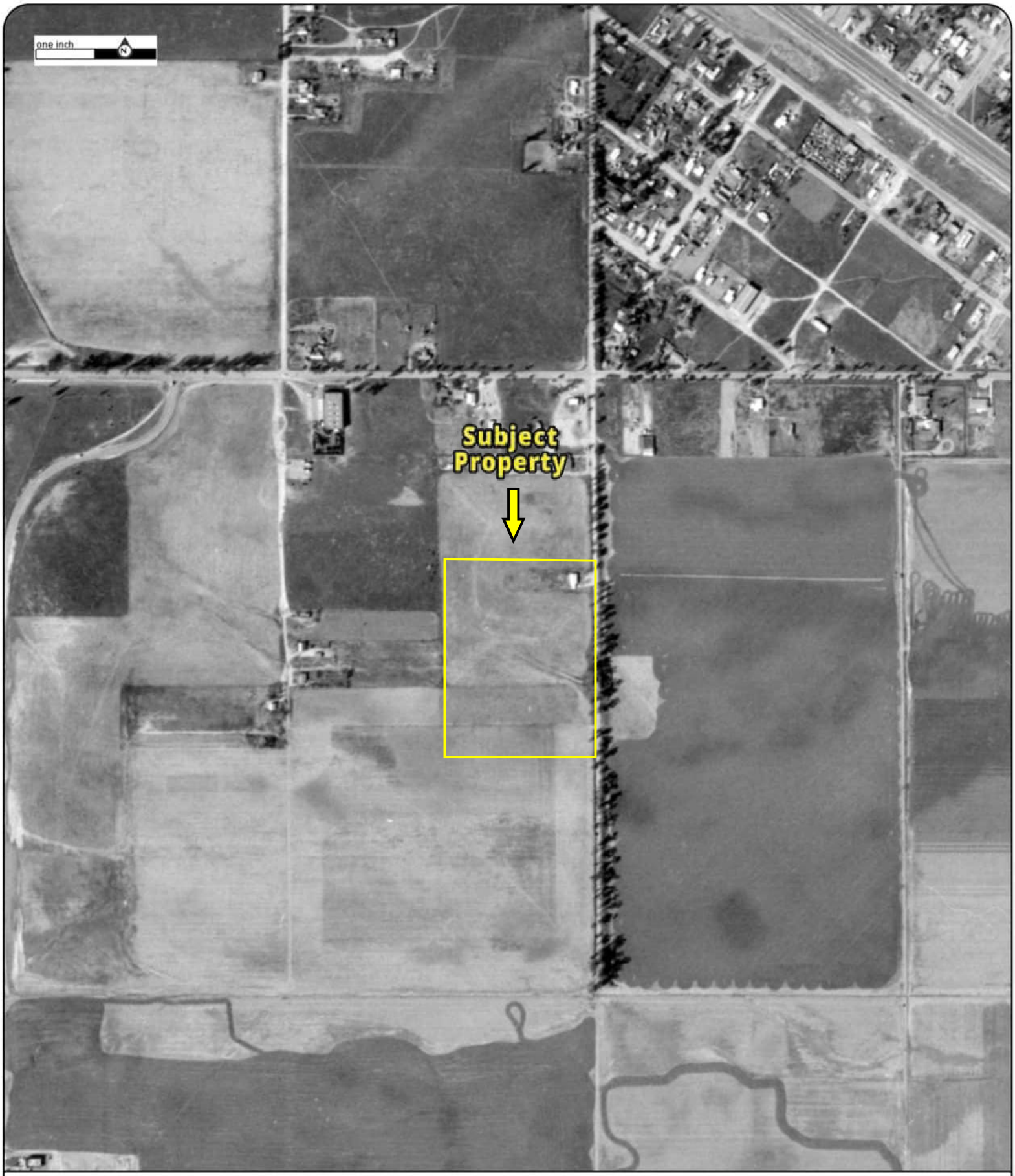

Year: 1976
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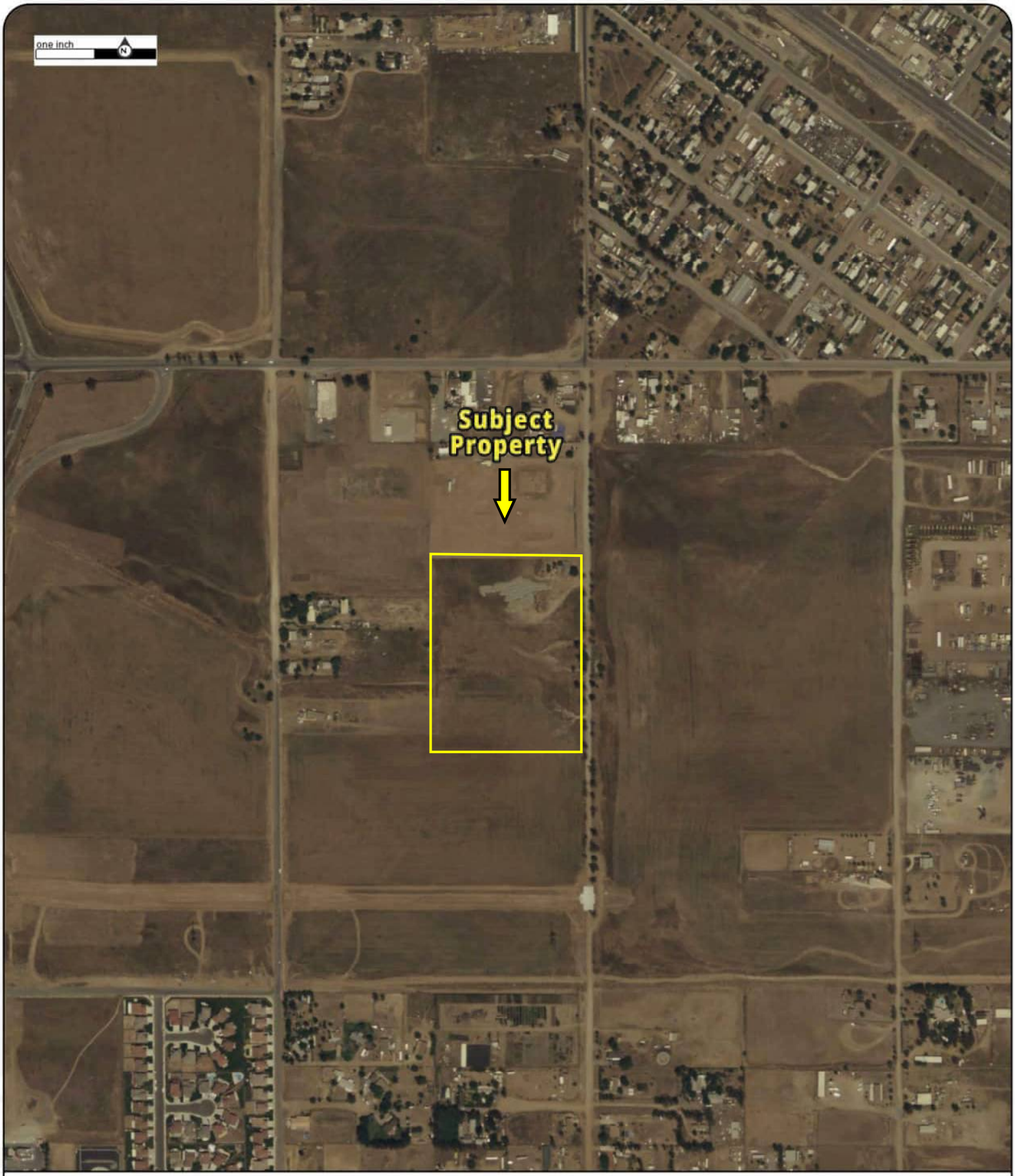

Year: 2005
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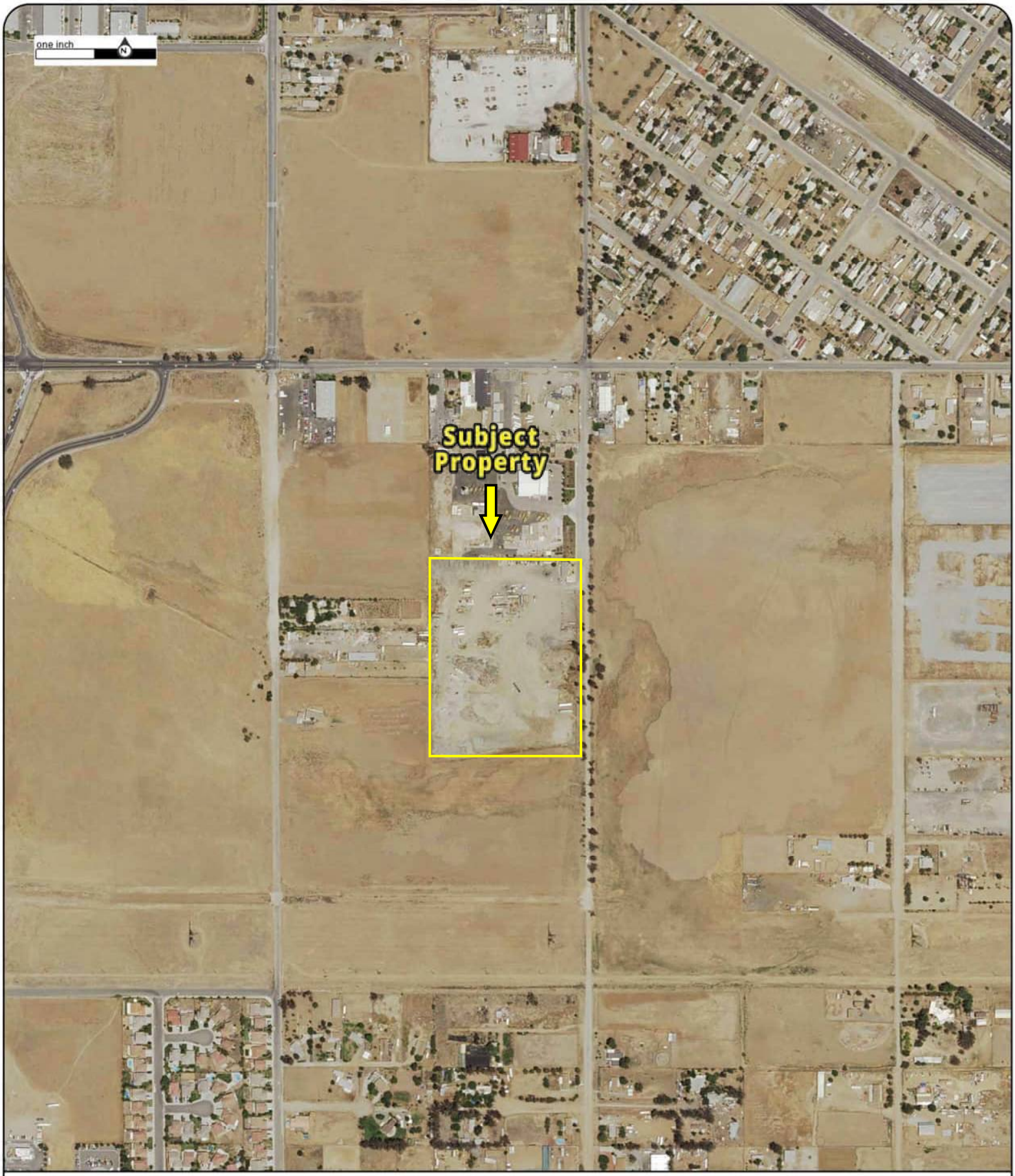

Year: 2014
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FIRE INSURANCE MAPS

Project Property:	Menifee Commerce Center Phase 3 26227 Sherman Road MENIFEE CA 92585
Project No:	22-366047.1
Requested By:	Partner Engineering and Science, Inc.
Order No:	22040600526
Date Completed:	April 07, 2022

Please note that no information was found for your site or adjacent properties.

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

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ERIS

CITY DIRECTORY

Project Property:	*Menifee Commerce Center Phase 3* *26227 Sherman Road* *MENIFEE,CA 92585*
Project No:	*22-366047.1*
Requested By:	*Partner Engineering and Science, Inc.*
Order No:	*22040600526*
Date Completed:	*April 12, 2022*

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April 12, 2022
RE: CITY DIRECTORY RESEARCH
26227 Sherman Road
MENIFEE,CA 92585

Thank you for contacting ERIS for an City Directory Search for the site described above. Our staff has conducted a reverse listing City Directory search to determine prior occupants of the subject site and adjacent properties. We have provided the nearest addresses(s) when adjacent addresses are not listed. If we have searched a range of addresses, all addresses in that range found in the Directory are included.

Note: Reverse Listing Directories generally are focused on more highly developed areas. Newly developed areas may be covered in the more recent years, but the older directories will tend to cover only the "central" parts of the city. To complete the search, we have either utilized the ACPL, Library of Congress, State Archives, and/or a regional library or history center as well as multiple digitized directories. These do not claim to be a complete collection of all reverse listing city directories produced.

ERIS has made every effort to provide accurate and complete information but shall not be held liable for missing, incomplete or inaccurate information. To complete this search we used the general range(s) below to search for relevant findings. If you believe there are additional addresses or streets that require searching please contact us at 866-517-5204.

Search Criteria:
27411-27555 of Ethanac Rd
26061-26227 of Sherman Rd
Search Notes:

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Search Results Summary

Date	Source	Comment
2020	DIGITAL BUSINESS DIRECTORY	
2016	DIGITAL BUSINESS DIRECTORY	
2012	DIGITAL BUSINESS DIRECTORY	
2008	DIGITAL BUSINESS DIRECTORY	
2003	DIGITAL BUSINESS DIRECTORY	
2000	DIGITAL BUSINESS DIRECTORY	
1996	HAINES	
1991	HAINES	
1986	HAINES	
1984	HAINES	
1977	HAINES	
1974	HAINES	
1971	HAINES	

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2020 ETHANAC RD

SOURCE: DIGITAL BUSINESS DIRECTORY

27411 **CAMBEROS SMOG...***AUTOMOBILE REPAIRING & SERVICE*
27411 **ETHANAC SMOG...***AUTOMOBILE SMOG CONTROL INSPECTIONS*
27411 **LONG'S AUTOMOTIVE...***AUTOMOBILE REPAIRING & SERVICE*
27451 **SHELTON'S GOLF CARS...***GOLF CARS & CARTS*
27491 **MIRANDA TIRES WHEELS...***TIRE-DEALERS-RETAIL*
27491 **RUDOLPH MAXIAN...***RESIDENTIAL*
27531 **RUBEN GONZALES...***RESIDENTIAL*
27546 **JACK PENUNURI...***RESIDENTIAL*
27555 **ALEJANDRO GODINA...***RESIDENTIAL*

2020 SHERMAN RD

SOURCE: DIGITAL BUSINESS DIRECTORY

26061 **SAMUEL TEJADA...***RESIDENTIAL*
26105 **PRO STRUCTURAL INC...***MASONRY CONTRACTORS*
26227 **NORTH COUNTY SAND & GRAVEL...***BUILDING MATERIALS*
26227 **NORTH COUNTY SAND & GRAVEL...***LUMBERRETAIL*

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2016 ETHANAC RD
SOURCE: DIGITAL BUSINESS DIRECTORY

27411 **CHANEY'S CERTIFIED AUTO REPAIR...***AUTOMOBILE REPAIRING & SERVICE*
27411 **CHANEY'S CERTIFIED AUTO REPAIR...***AUTOMOBILE SMOG CONTROL INSPECTIONS*
27451 **SHELTON'S GOLF CARS...***GOLF CARS & CARTS*
27491 **RUDOLPH MAXIAN...***RESIDENTIAL*
27491 **TIRE STOP & RECYCLING...***TIRE-DEALERS-USED (WHLS)*
27546 **JACK PENUNURI...***RESIDENTIAL*
27555 **ALEJANDRO GODINA...***RESIDENTIAL*
27555 **ALEJO GODINA...***RESIDENTIAL*

2016 SHERMAN RD
SOURCE: DIGITAL BUSINESS DIRECTORY

26061 **SAMUEL TEJADA...***RESIDENTIAL*
26227 **NORTH COUNTY SAND & GRAVEL...***BUILDING MATERIALS*

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2012 ETHANAC RD
SOURCE: DIGITAL BUSINESS DIRECTORY

27411 **CHANEY'S CERTIFIED AUTO REPAIR...***AUTOMOBILE REPAIRING & SERVICE*
27451 **SHELTON'S GOLF CARS...***GOLF CARS & CARTS*
27491 **TIRE STOP & RECYCLING...***TIRE-DEALERS-USED (WHLS)*
27555 **ALEJO GODINA...***RESIDENTIAL*

2012 SHERMAN RD
SOURCE: DIGITAL BUSINESS DIRECTORY

26061 **MARIA PERALTA...***RESIDENTIAL*
26105 **PACIFIC READY MIX...***CONCRETE-READY MIXED*
26227 **NORTH COUNTY SAND & GRAVEL...***BUILDING MATERIALS*

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2008 ETHANAC RD

SOURCE: DIGITAL BUSINESS DIRECTORY

27411 **CHANEYS CERTIFIED AUTO REPAIR...***GENERAL AUTO REPAIR*
27411 **CHANEYS CERTIFIED AUTO REPAIR...***AUTOMOBILE REPAIRING & SERVICE*
27451 **EAGLE ACCESS SUPPLY CO INC...***DOOR,WINDOW PRODUCTS*
27451 **SHELTONS GOLF CARS...***AUTO DEALERS NEC*
27531 **QUICK COVERS...***BUILDINGS-METAL*
27531 **QUICK COVERS...***COMMERCIAL CONSTRUCTION CONTRACTOR*
27531 **QUICK-COVERS.COM...***NRESIDENTIAL CONSTR*
27531 **QUICK-COVERS.COM...***BUILDINGS-METAL*
27531 **R V COVERS...***RECREATIONAL VEHICLES-EQUIP/PARTS/SVC*
27531 **TSMC ENTERPRISE...***NCLASSIFIABLE ESTAB*
27531 **TSMC ENTERPRISE...***NONCLASSIFIED ESTABLISHMENTS*
27555 **ALEJO GODINA...***RESIDENTIAL*

2008 SHERMAN RD

SOURCE: DIGITAL BUSINESS DIRECTORY

26105 **PACIFIC GUNITE INC...***SWIMMING POOL CONST*
26105 **PACIFIC READY MIX...***LUMBER, REL BLD MTL*
26105 **PRESTIGE GUNITE OF CALIFORNIA...***CONCRETE WORK*
26227 **NORTH COUNTY SAND & GRAVEL...***BRICK,STONE,REL MTL*

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2003 ETHANAC RD
SOURCE: DIGITAL BUSINESS DIRECTORY

27411 **CHANEY'S CERTIFIED AUTO REPAIR...***ENGINE REPAIR*
27491 **JACKSON TIRE...***ENGINE REPAIR*
27531 **QUICK COVERS**
27555 **ALEJO GODINA...***RESIDENTIAL*
27555 **ROSA ABAD...***RESIDENTIAL*

2003 SHERMAN RD
SOURCE: DIGITAL BUSINESS DIRECTORY

26061 **J & B KLUS...***RESIDENTIAL*

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2000 ETHANAC RD

SOURCE: DIGITAL BUSINESS DIRECTORY

27524 **PACHACO A...***RESIDENTIAL*
27536 **SMITH CARRIE...***RESIDENTIAL*
27546 **DEWITT FLOYD F...***RESIDENTIAL*

2000 SHERMAN RD

SOURCE: DIGITAL BUSINESS DIRECTORY

26061 **DALLMAN LOWELL D...***RESIDENTIAL*

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1996 ETHANAC RD

SOURCE: HAINES

27391	XXXX...
27411	CHANEYS AUTO REPAIR...
27415	XXXX...
27471	XXXX...
27477	LEE PHILLIPS TIRE...
27477	PHILLIPS LEE TIRE...
27512	XXXX...
27514	XXXX...
27516	XXXX...
27524	XXXX...
27625	TUTTLE ROY...

1996 SHERMAN RD

SOURCE: HAINES

25962	GILBREATH GEO...
26061	KLUS B...
26061	KLUS J...
26227	XXXX...
26510	GLASS W E...

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1991 ETHANAC RD

SOURCE: HAINES

27391 HADLEY MARK...
27411 CHANEYS AUTO REPAIR...
27415 SPIESS CONSTR...
27471 XXXX...
27512 XXXX...
27514 XXXX...
27516 XXXX...
27524 PACHACO ALEX...
27531 LOPORTO GEO...
27536 XXXX...
27546 DEWITT FLOYD F ...
27556 XXXX...
27606 BLACKWELL G H ...

1991 SHERMAN RD

SOURCE: HAINES

25962 GILBREATH GEO...
26061 DALLMAN LOWELL D...
26061 DALLMAN M...
26227 XXXX...
26510 GLASS W E...

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1986 ETHANAC RD
SOURCE: HAINES

27391 XXXX...
27411 CHANEYS GN AUTO RPR...
27471 LEE PHILLIPS TIRE...
27512 XXXX...
27516 XXXX...
27524 XXXX...
27531 XXXX...
27536 LOEFFLER ED...
27546 DEWITT FLOYD F...

1986 SHERMAN RD
SOURCE: HAINES

25962 XXXX...
26061 MEADOWS DENSE...
26061 MULTI TENANT RESIDENTIAL...
26227 XXXX...

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1984 ETHANAC RD
SOURCE: HAINES

27391 JONES OLICE E REV...
27411 CHANEYS GN AUTO RPR...
27471 BERTS AUTO REPAIR...
27471 ECOLOGY TIRE SERV...
27471 PHILLIPS LESLIE A...
27512 XXXX...
27516 XXXX...
27524 RODRIGUEZ AGUSTIN...
27531 XXXX...
27536 LOEFFLER ED...
27546 DEWITT FLOYD F...
27556 XXXX...

1984 SHERMAN RD
SOURCE: HAINES

25962 XXXX...
26061 DALLMAN LOWELL D...
26061 DALLMAN M...
26061#C TENORIO FRED...
26227 XXXX...

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1977 ETHANAC RD

SOURCE: HAINES

27391 JONES OLICE E REV...
27411 OWEN FLOYD P...
27411 OWEN GARAGE...
27516 BLAIR EVELYN...
27531 XXXX...
27546 HARRIS ANNIE...
27556 BLACKWOOD GEO F...

1977 SHERMAN RD

SOURCE: HAINES

25908 WORTHINGTON SHEILA...
26061 BRANDT TOM...
26061 DALLMAN LOWELL D...
26061 WINFREY MARY G...
26227 XXXX...

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1974 ETHANAC RD
SOURCE: HAINES

27391 JONES OLICE E R...
27411 OWEN GARAGE...
27516 BLAIR EVELYN...
27516 RADNEY W J...
27546 DEWITT MINERVA...
27625 TUTTLE ROY...

1974 SHERMAN RD
SOURCE: HAINES

25908 MORTON J R...
26061 A 1 REFRIGERATN SV ...
26061 GORET FAYE ...
26227 WINFREY NICK ...

Report ID: 22040600526 - 04/12/202
www.erisinfo.com

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1971 ETHANAC RD

SOURCE: HAINES

STREET NOT LISTED

1971 SHERMAN RD

SOURCE: HAINES

STREET NOT LISTED

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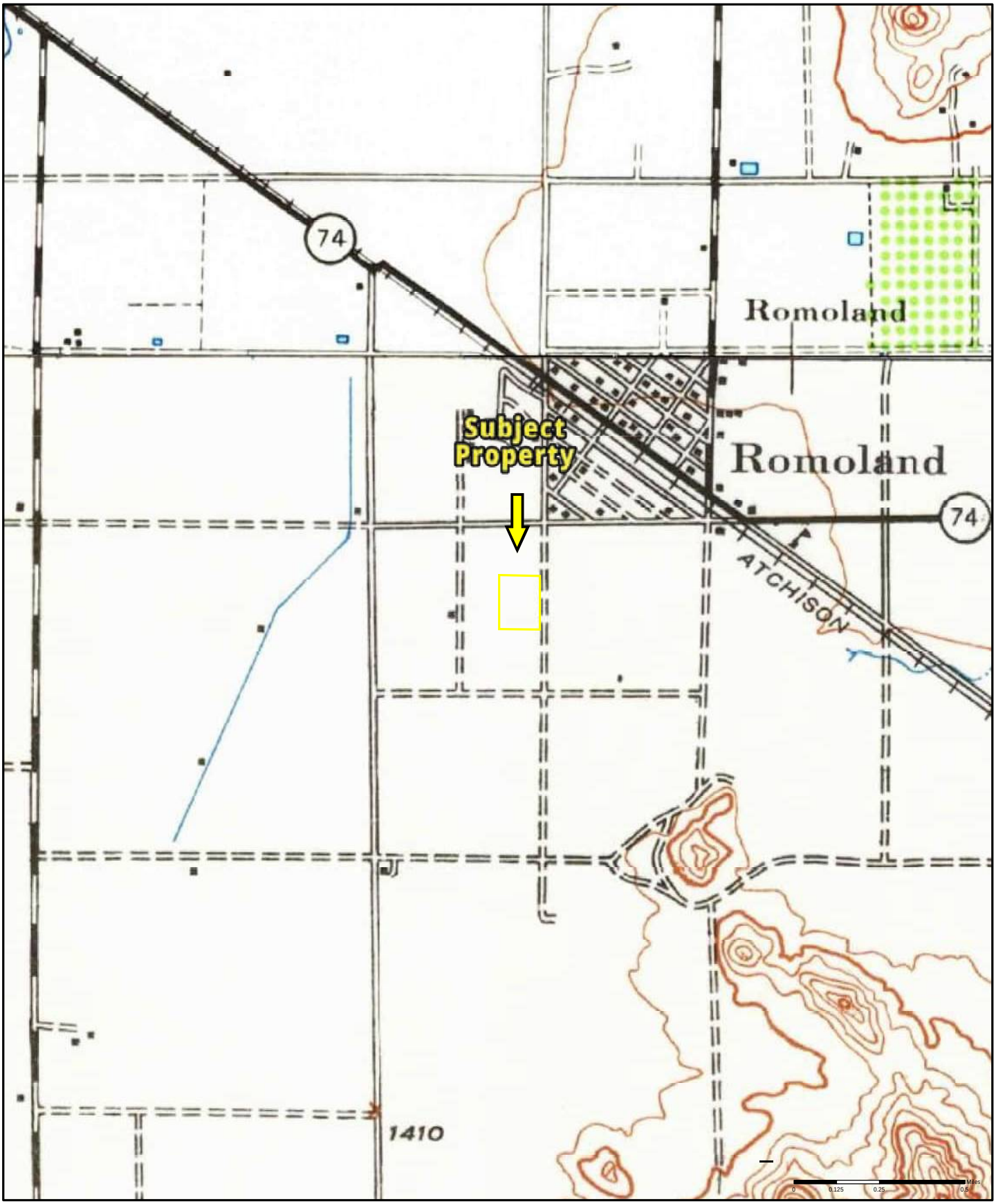

1942 (1) *Aerial Photo Year: 1939* (2) *Aerial Photo Year: 1939*

Quadrangle(s): Murrieta, CA(1); Perris, CA(2)

Order No. 22040600526

Source: USGS 15 Minute Topographic Map

PARTNER

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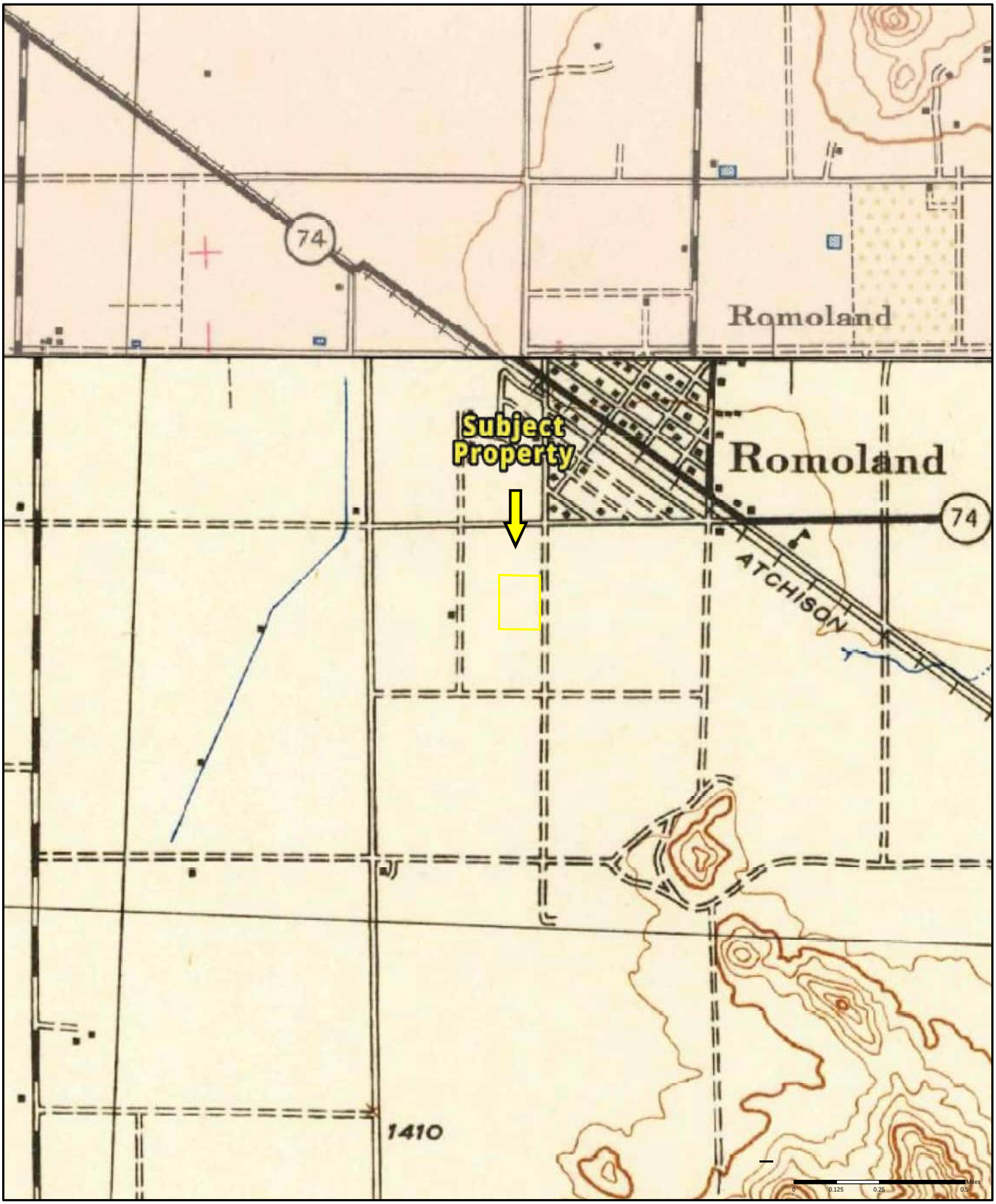

1943 (1) *Aerial Photo Year: 1939* (2) *Aerial Photo Year: 1939*

Quadrangle(s): Perris, CA(1); Murrieta, CA(2)

Order No. 22040600526

Source: USGS 15 Minute Topographic Map

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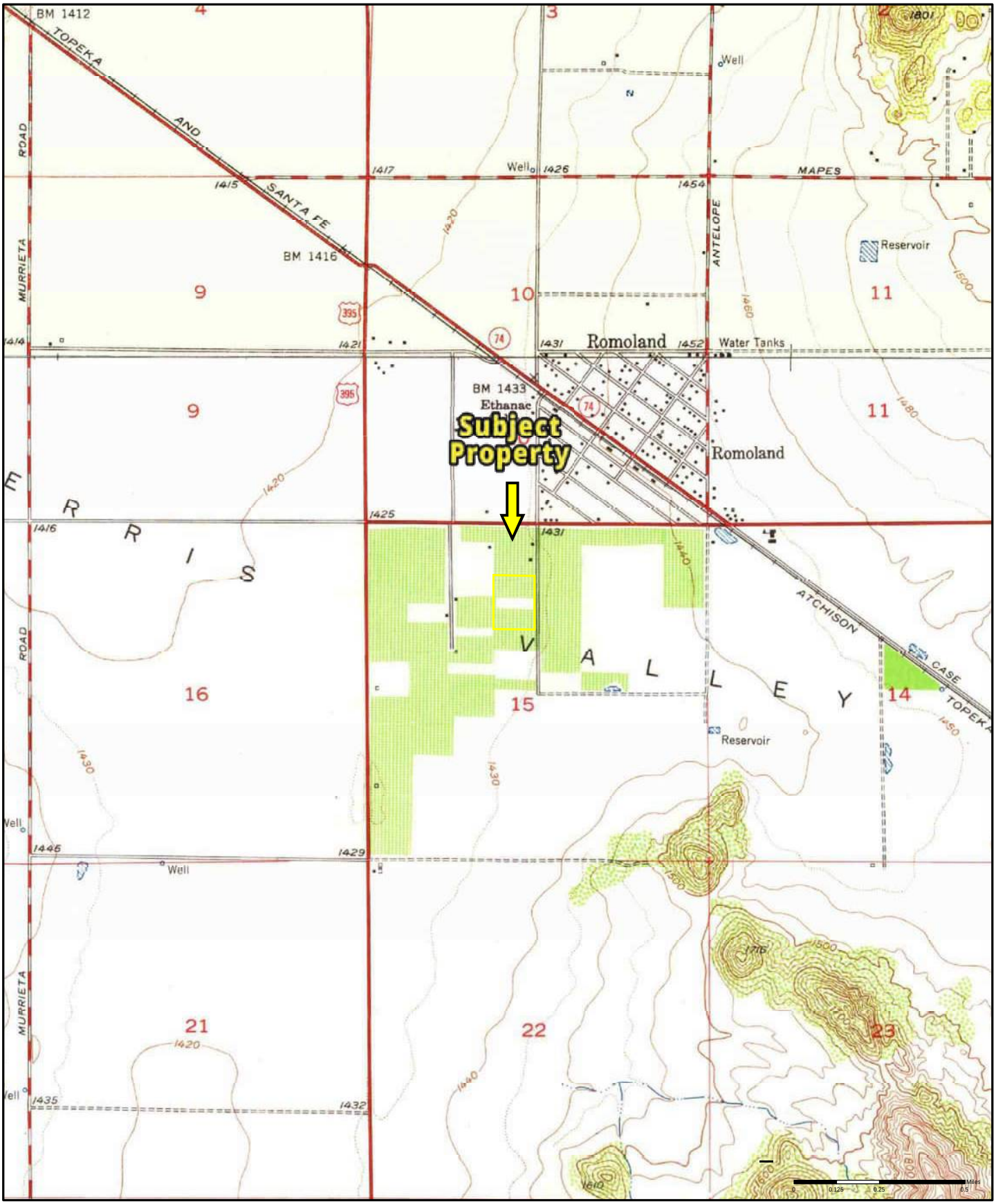

1953 (1) *Aerial Photo Year: 1951* (2) *Aerial Photo Year: 1951*

Quadrangle(s): Perris, CA(1); Romoland, CA(2)

Order No. 22040600526

Source: USGS 7.5 Minute Topographic Map

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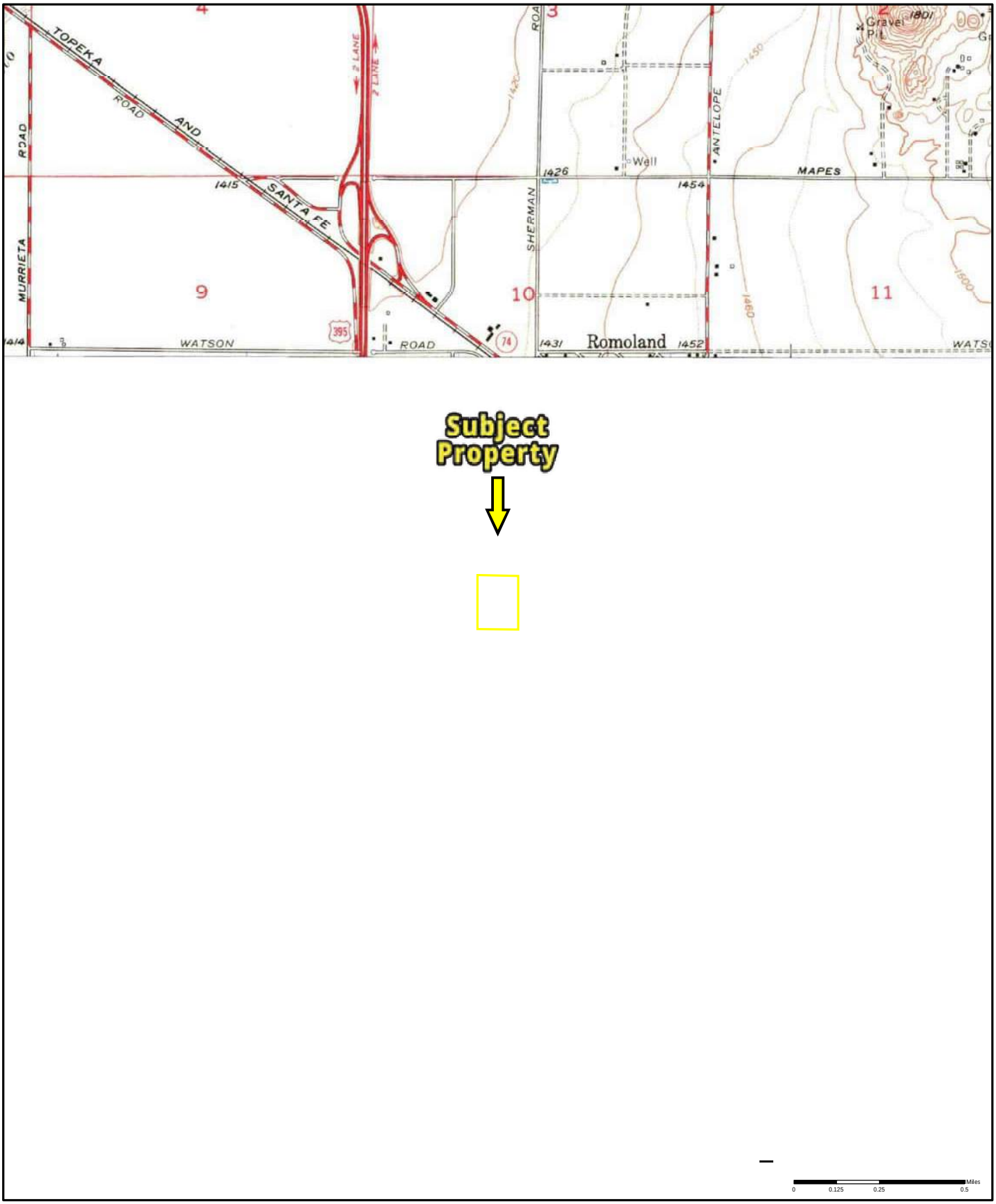

1967 (1) *Aerial Photo Year: 1966*

Quadrangle(s): Perris, CA(1)

Order No. 22040600526

Source: USGS 7.5 Minute Topographic Map

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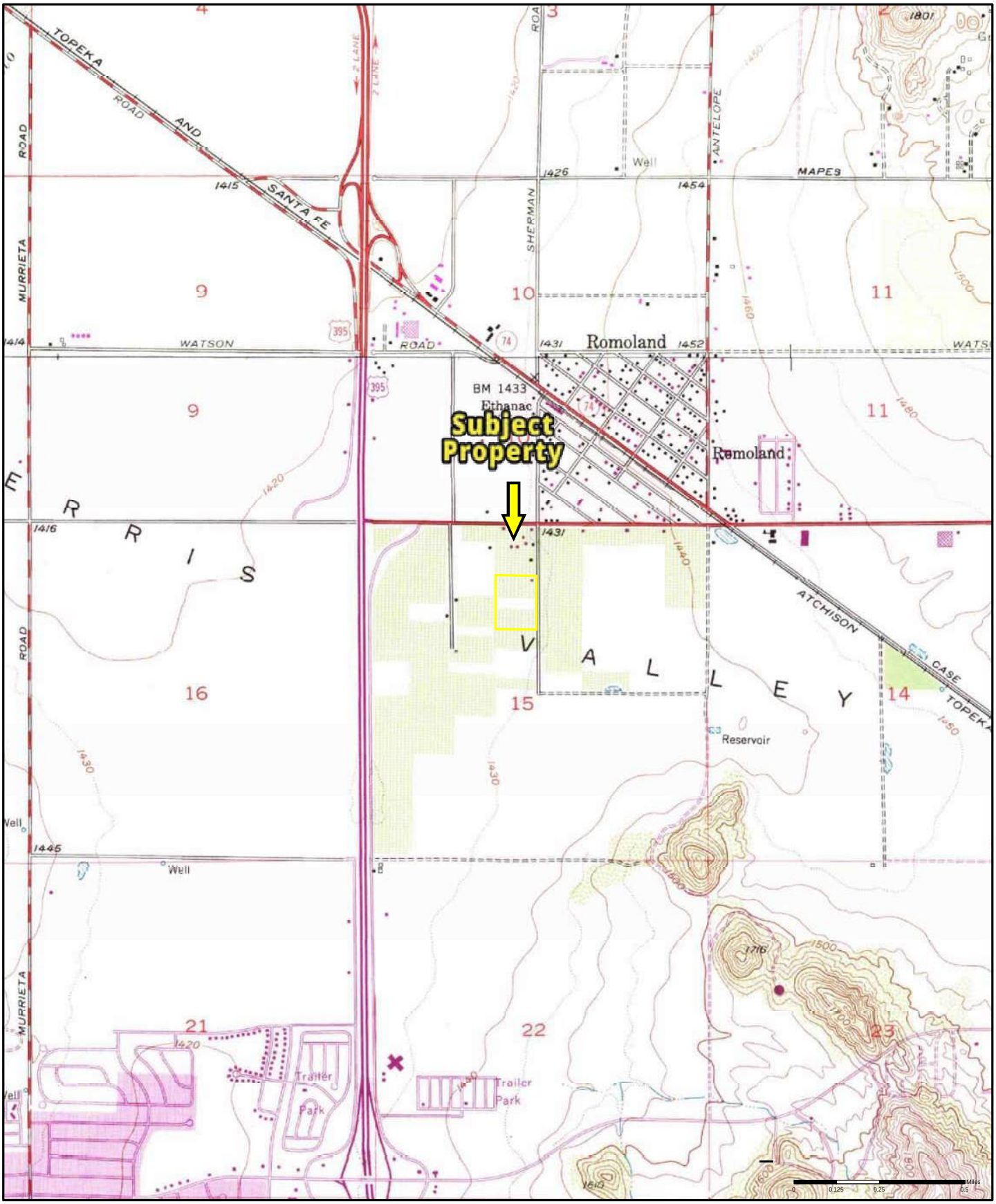

1973 (1) Aerial Photo Year: 1973 Photo Revision Year: 1973 (2) Aerial Photo Year: 1973 Photo Revision Year: 1973

Quadrangle(s): Perris, CA(1); Romoland, CA(2)

Order No. 22040600526

Source: USGS 7.5 Minute Topographic Map

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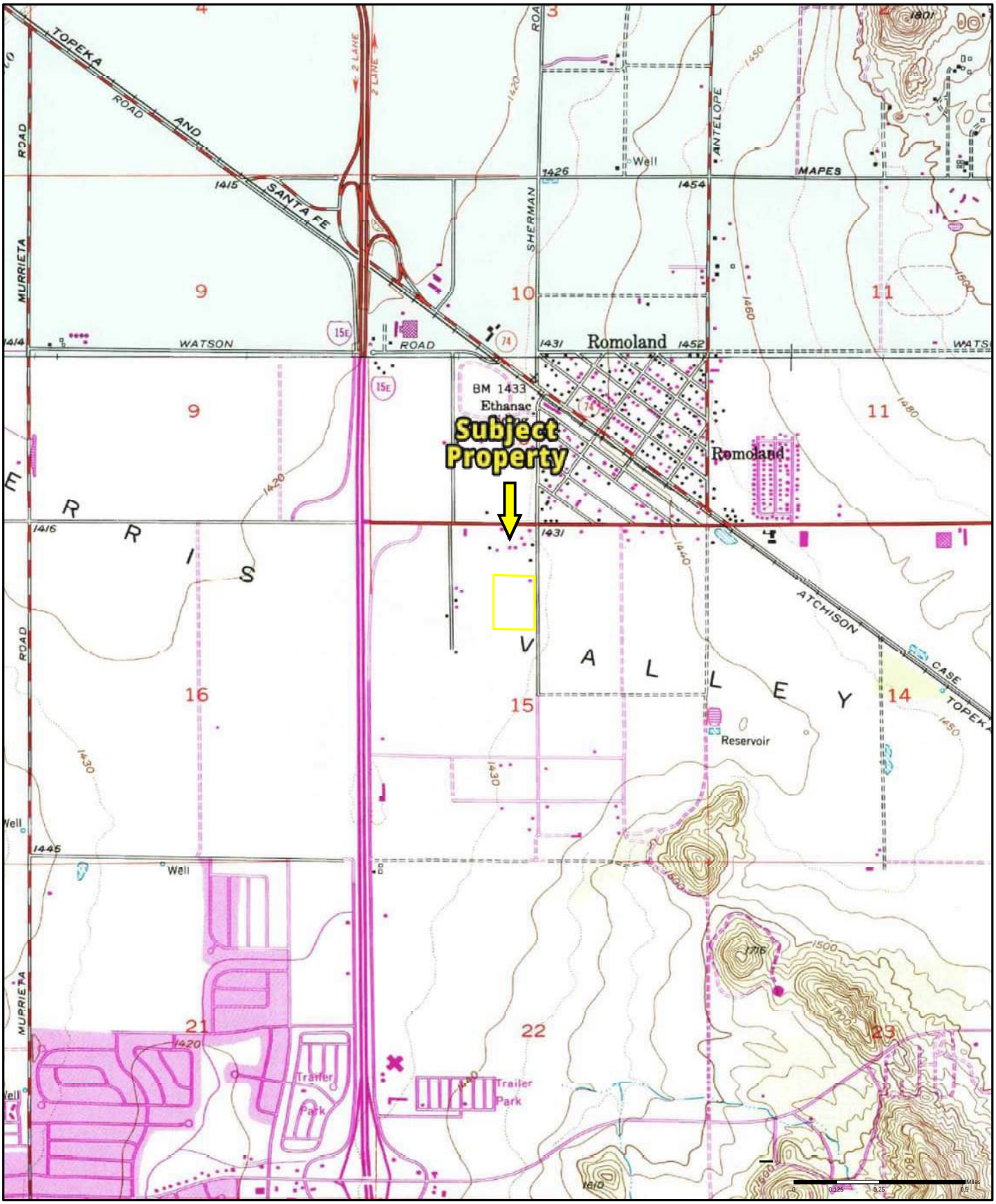

1979

(1) *Aerial Photo Year: 1978*
Photo Revision Year: 1979

(2) *Aerial Photo Year: 1976*
Photo Revision Year: 1979

Quadrangle(s): Perris, CA(1); Romoland, CA(2)

Order No. 22040600526

Source: USGS 7.5 Minute Topographic Map

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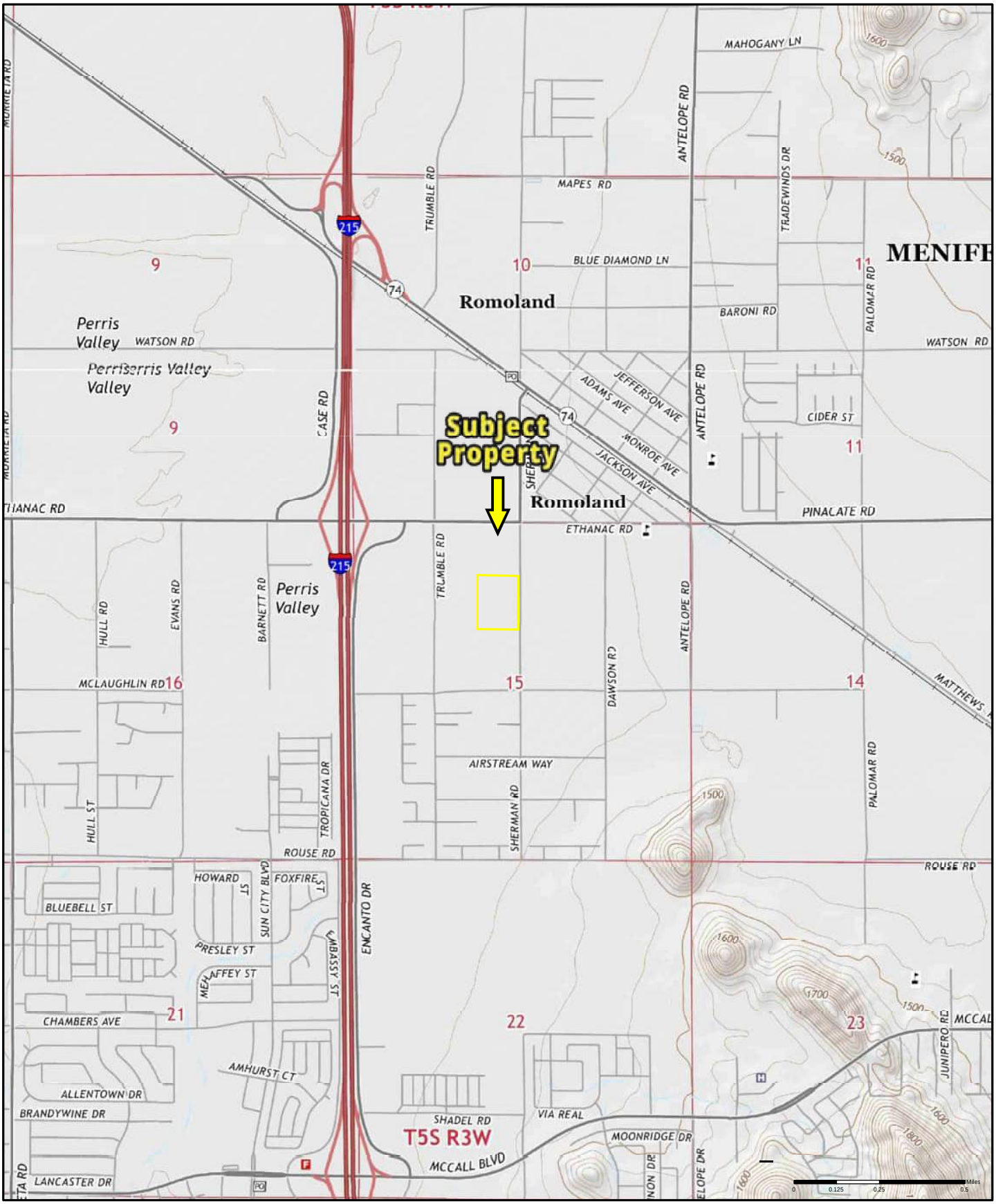

2015

Quadrangle(s): Perris, CA; Romoland, CA

Order No. 22040600526

Source: USGS 7.5 Minute Topographic Map

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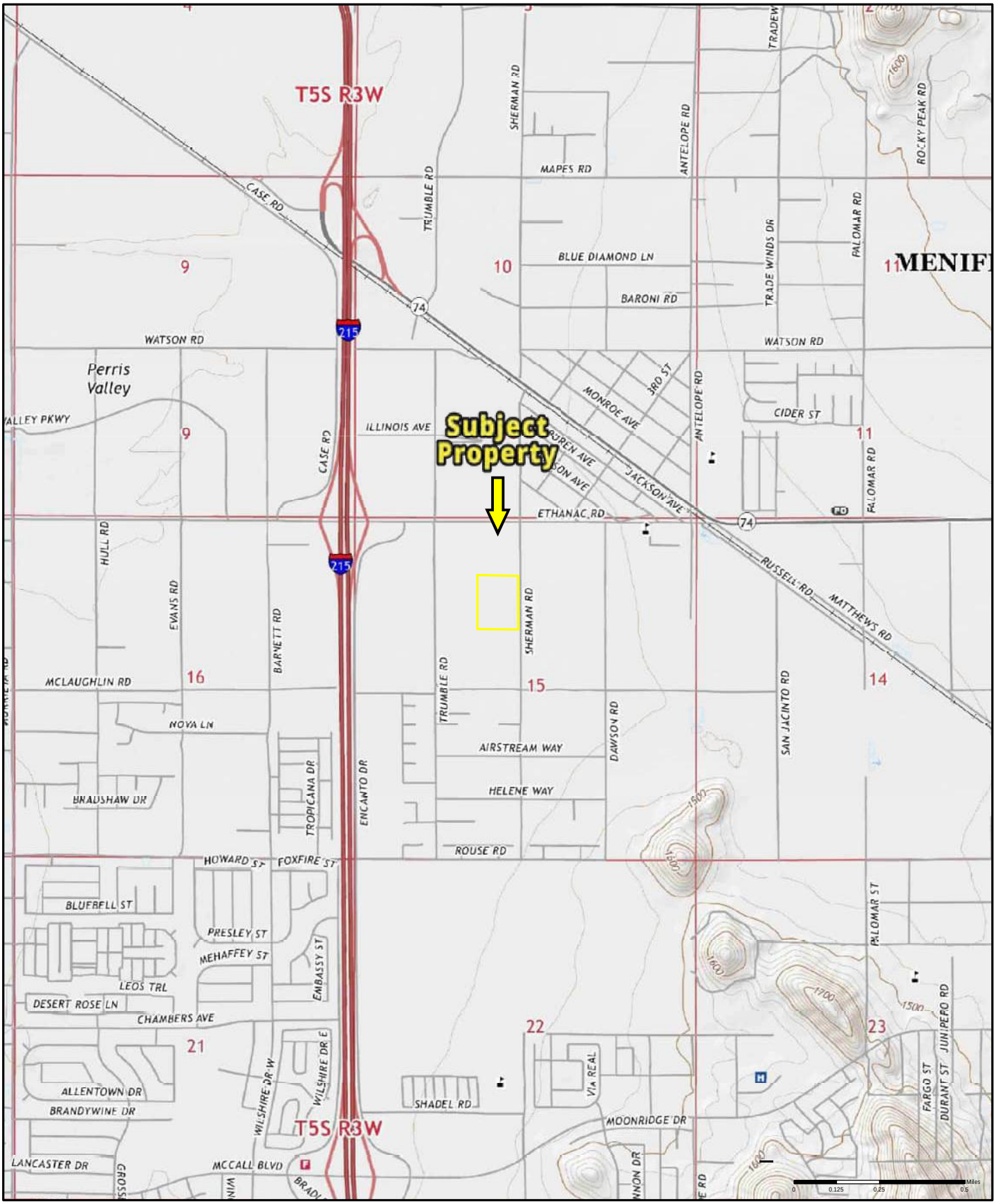

2018

Quadrangle(s): Perris, CA; Romoland, CA

Order No. 22040600526

Source: USGS 7.5 Minute Topographic Map

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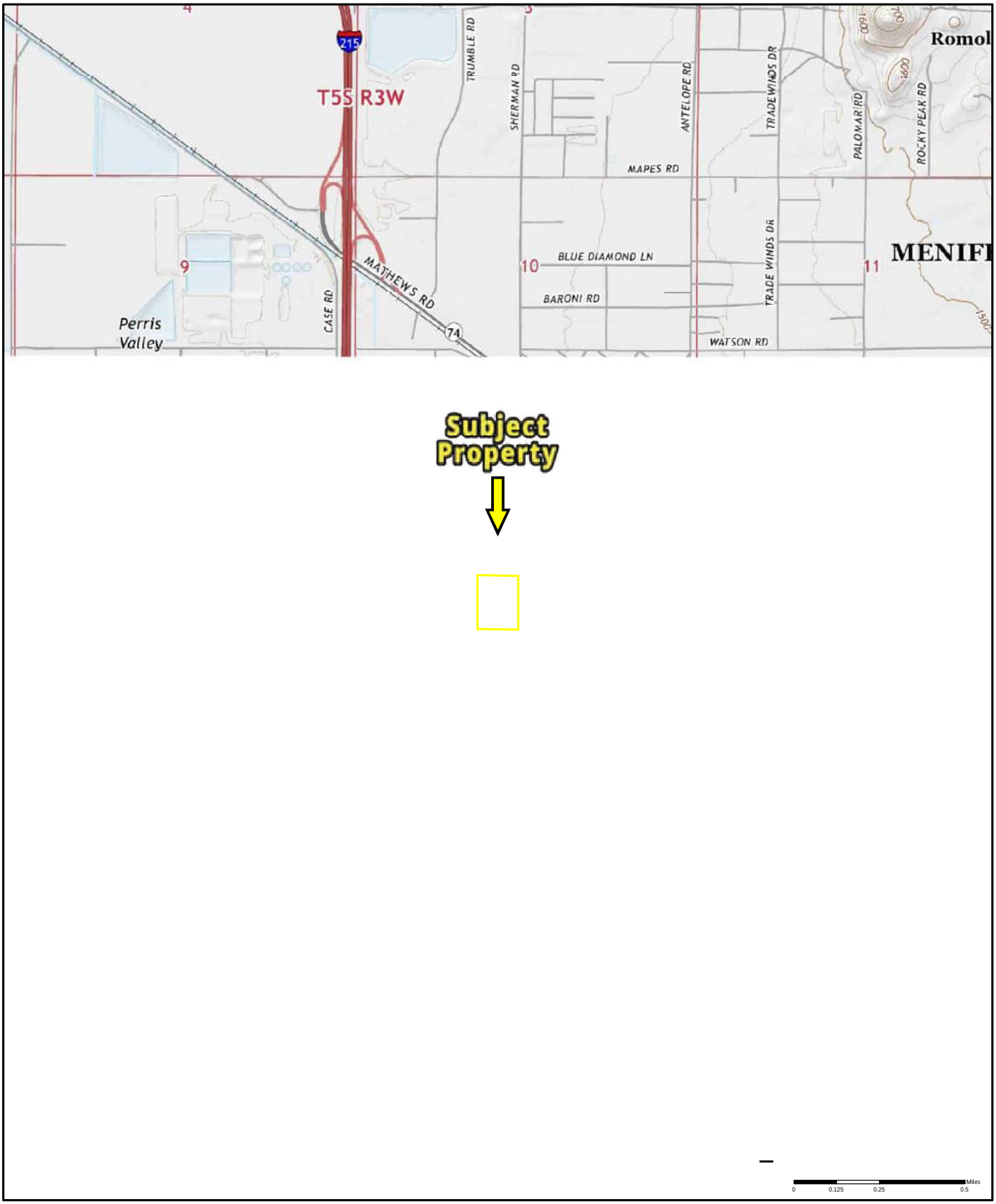

2021

Quadrangle(s): Perris, CA

Order No. 22040600526

Source: USGS 7.5 Minute Topographic Map

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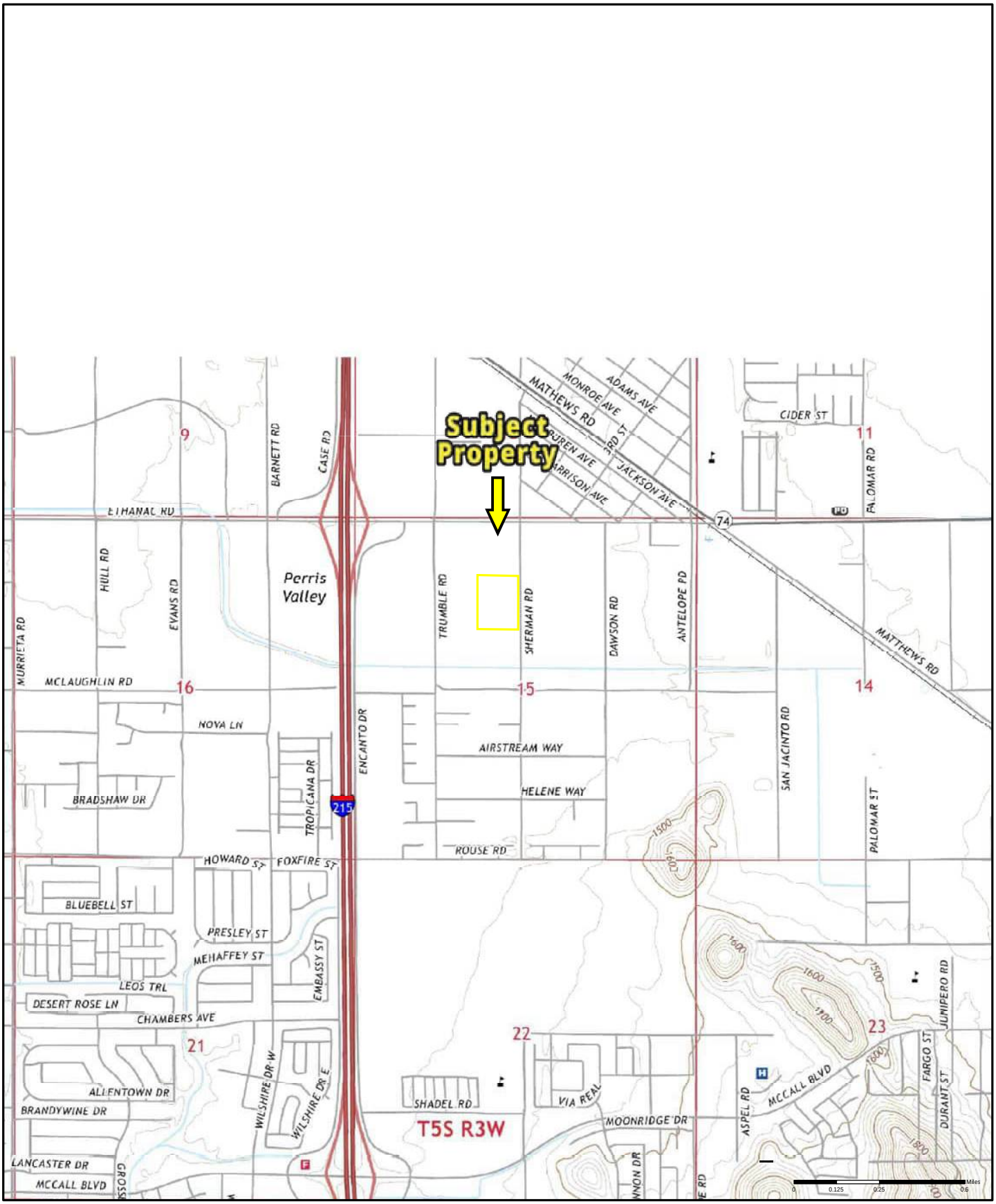

2022

Quadrangle(s): Romoland, CA

Order No. 22040600526

Source: USGS 7.5 Minute Topographic Map

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Site Report
North County Sand & Gravel

26227 SHERMAN RD
ROMOLAND, CA 92585

County	Riverside County
CalEnviroscreen 3.0 Percentile Range	56-60%

Facilities Explorer ID	52529	**Facility Identifier**	FA0025239
EPA Identifier	CAL000320058		

Description	Source System	Program Id	Start Date	End Date
Hazardous Waste Generator	California Environmental Reporting System	10324150	07/10/2013	
Chemical Storage Facilities	California Environmental Reporting System	10324150	07/10/2013	
Aboveground Petroleum Storage	California Environmental Reporting System	10324150	07/10/2013	

Name	Title	Phone	Address
Mailing Address			26227 Sherman Rd

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Name	Title	Phone	Address
Michael J LaPaglia, V			26227 Sherman Rd Romoland, CA 92585
North County Sand & Gravel		(951) 928-2881	26227 Sherman Rd Romoland, CA 92585
North County Sand & Gravel, Inc		(951) 928-2881	
North Cpunty Sand & Gravel. Com		(951) 928-2881	26227 Sherman Rd Romoland, CA 92585
Riverside Cnty Env Health		(951) 358-5055	4065 County Circle Drive, Room 104 Riverside, CA 92503
Tracy F LaPaglia			

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Jared Blumenfeld
Secretary for
Environmental Protection

Department of Toxic Substances Control

Meredith Williams, Ph.D., Director
1001 "I" Street
P.O. Box 806
Sacramento, California 95812-0806

Gavin Newsom
Governor

Facility Search Results

Selection Criteria:

Facility:
Search on: Physical Address
Street: 26227 Sherman
Status: Active and Inactive
Sort Direction: asc
Sorted By: EPA ID
Records Found: 2

EPA ID Number	Name	Address	City	Zip
CAC002605464	NORTH COUNTY SAND & GRAVEL INC	26227 SHERMAN RD	ROMOLAND	92585
CAL000320058	NORTH COUNTY SAND & GRAVEL INC	26227 SHERMAN RD	MENIFEE	925859223

The Department of Toxics Substances Control (DTSC) takes every precaution to ensure the accuracy of data in the Hazardous Waste Tracking System (HWTS). However, because of the large number of manifests handled, inaccuracies in the submitted data, limitations of the manifest system and the technical limitations of the database, DTSC cannot guarantee that the data accurately reflect what was actually transported or produced.

Report Generation Date: 04/26/2022

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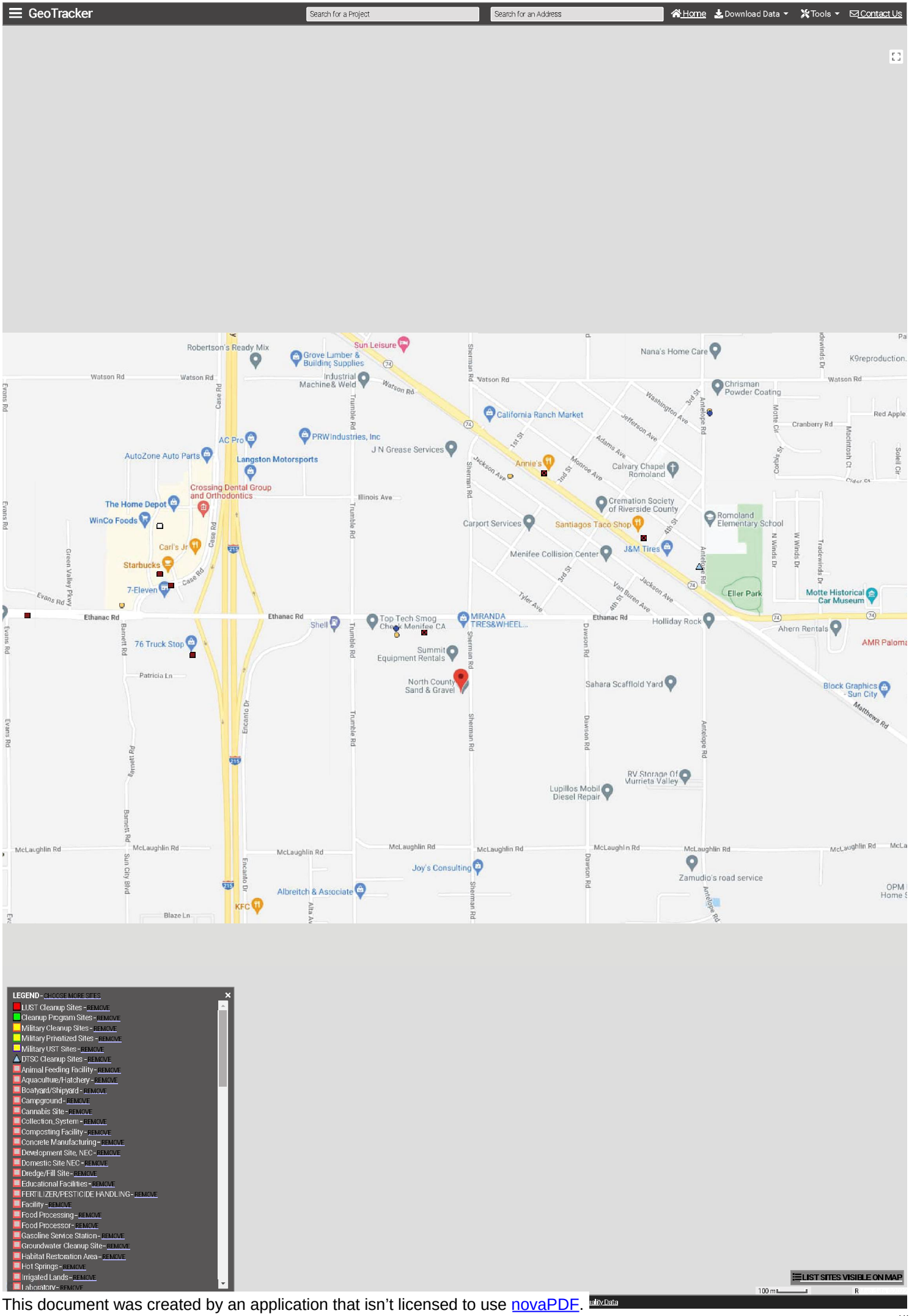

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Request #22-220

CLOSED

As of April 12, 2022, 3:49pm

Details

Please search records for **26227 Sherman Road** (APNs: 331-110-023, 331-110-038, and 331-110-039. Please look for hazardous materials incidents, fires, dumping activity, violations, etc. This request is for a Phase I Environmental Site Assessment at this property.

Thank you !

Received

April 8, 2022 via web

Departments

Fire

Requester

Margaret Thomas
mathomas@partneresi.com
2154 Torrance Boulevard, Torrance, CA 90501
3109275371
Partner Engineering and Science, Inc.

Documents

Public

(none)

Requester

(none)

Staff

Point of Contact

Roxy Burns

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Timeline

Request Published Public

April 12, 2022, 12:35pm

Request Closed Public

The City of Menifee has received and reviewed Request No. 22-220.

This letter shall serve as notification of the City's intent to comply with your request for public records, pursuant to the California Public Records Act (Government Code Section 6250 et seq.).

The City is not in possession of any records that are responsive to this request. Unfortunately, we are unable to produce records that are responsive to this request.

Please check with Riverside County for records prior to incorporation(2008).

April 12, 2022, 12:35pm

External Message Requester + Staff

Thank you for submitting your request to the City of Menifee.
Per the Records Request Act, we will make every effort to respond to you within ten days and update you if there are any changes. Response times and production of records may be delayed as a result of limited staffing and City Hall closures during the ongoing COVID-19 national, state, and local emergency. We appreciate your patience. Please contact our office 951-672-6777 if you have any questions.

April 8, 2022, 10:22am

Department Assignment Public

Fire

April 8, 2022, 10:22am

Request Opened Public

Request received via web

April 8, 2022, 10:22am

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County of Riverside

DEPARTMENT OF ENVIRONMENTAL HEALTH

JEFF JOHNSON, DIRECTOR

RELEASE OF RECORDS RESPONSE

April 25, 2022

Service Request No: 54334

Partner Engineering and Science, Inc.
Attn: Margaret Thomas
2154 Torrance Blvd
Torrance, CA 90501

Our office has completed the research regarding your Hazardous Materials Management records request.

RECORDS WERE LOCATED FOR THE FOLLOWING SITE ADDRESS:

26227 Sherman Road, Menifee/Romoland

Should you choose to move forward with your request and schedule an appointment for a file review in our office, the estimated fees are **$0.00**.

Please call 951-358-5055 to schedule an appointment. Records will be available for 30 days from the date of this letter, after which you will need to submit a new request.

Thank you and have a great day.

Please feel free to use the following contact information to reach out to us with any questions:

Riverside County Department of Environmental Health
Hazardous Materials Management Division
4065 County Circle Dr., Rm. 104
Riverside, CA 92503
Telephone: 951-358-5055 Fax: 951-358-5017

Additional information can be found on our website at **www.rivcoeh.org**

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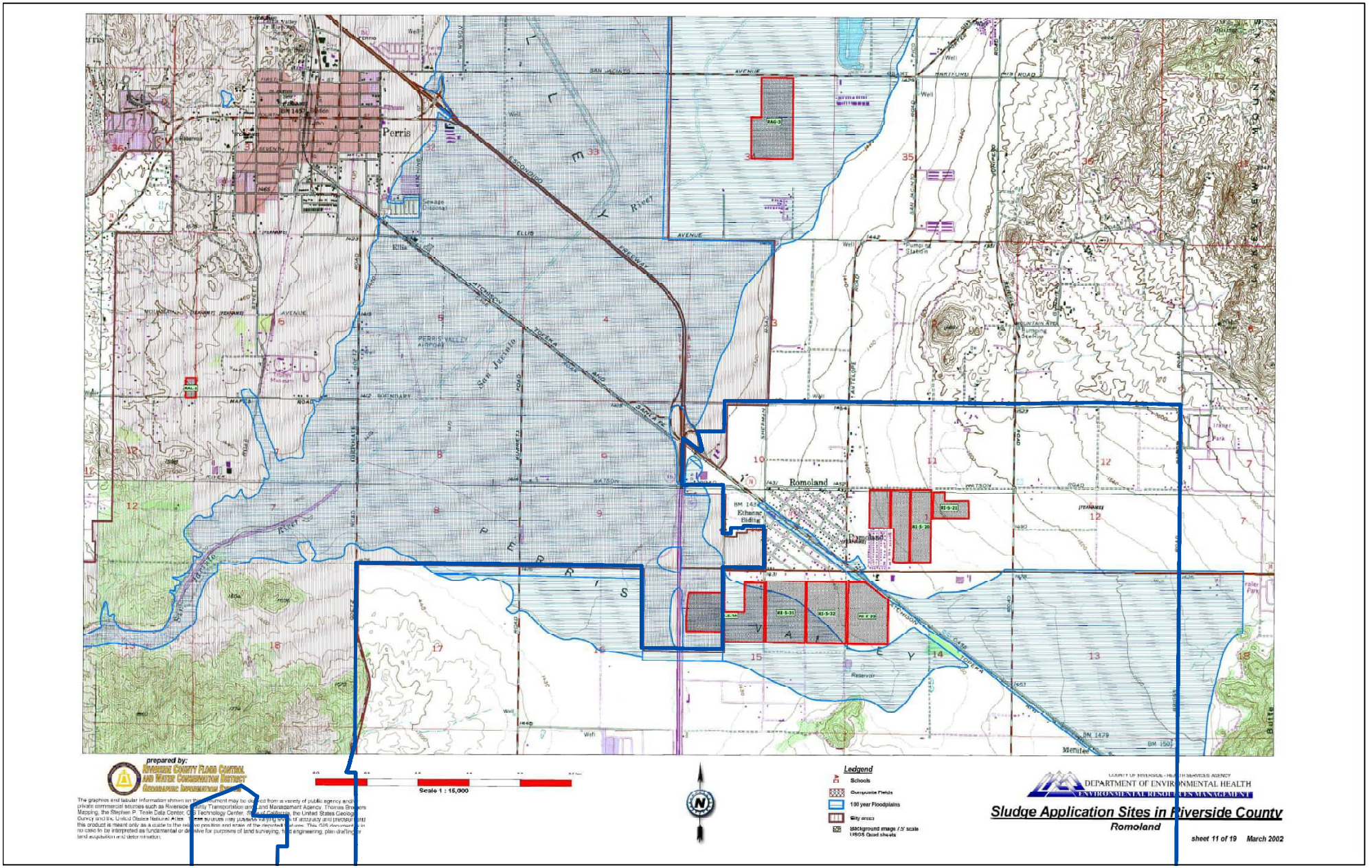

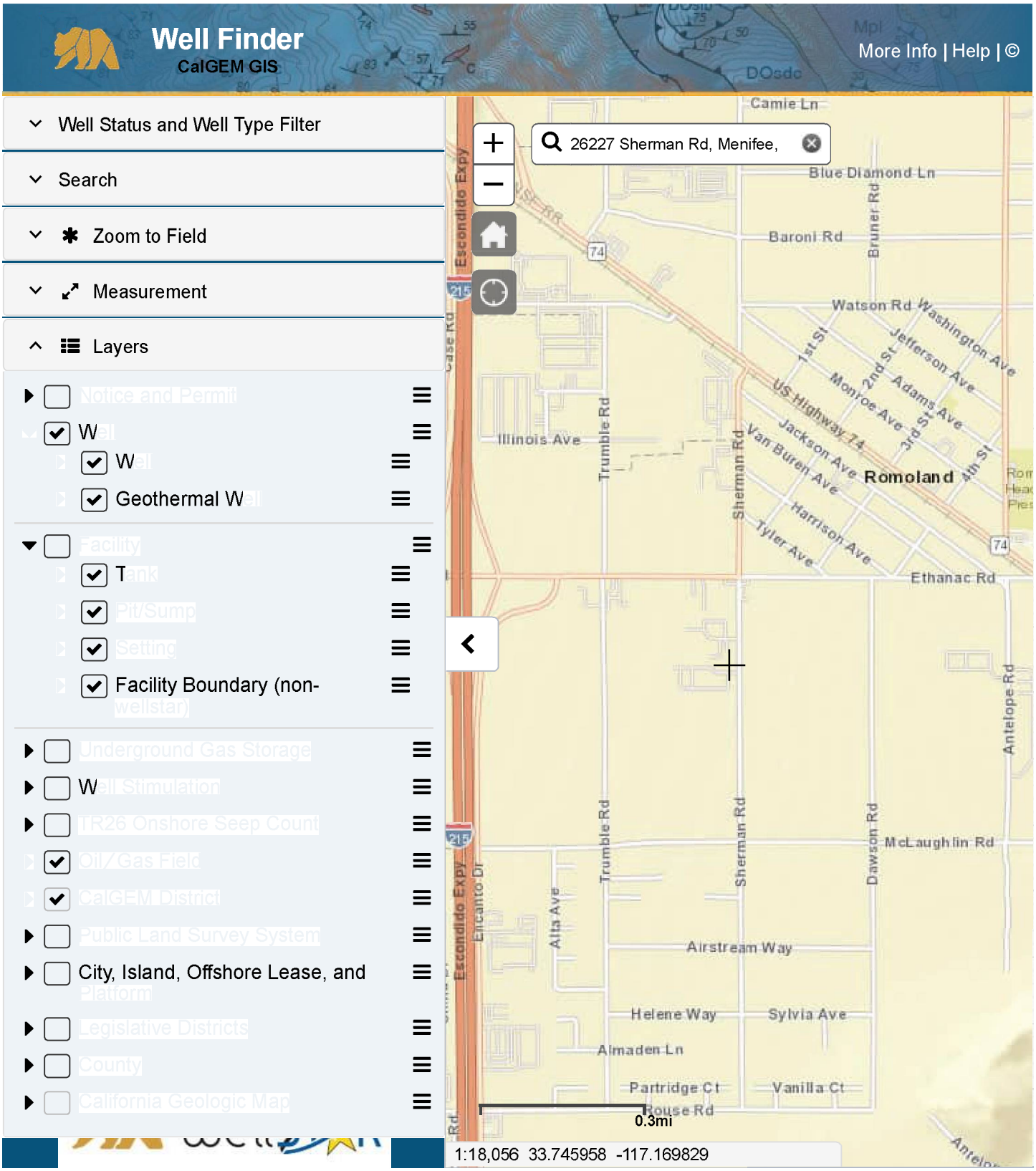

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DEPARTMENT OF BUILDING & SAFETY
COUNTY OF RIVERSIDE

HEADQUARTERS

BUILDING INFORMATION

ERECT ✓ | ENLARGE | RELOCATE | REMOVE | ADD
ALTER | REPAIR | DEMOLISH | SPECIAL | MOVE

OWNER | ARCHITECT | MEMBRANE
DRAFTSMAN | ENGINEER | NO

WOOD | CONCRETE | FIREPLACE
CONCRETE ✓ | PIERS | NO

EXT: BLOCK | FRAME ✓ | STUCCO ✓ | BRICK | CONC. | METAL | OTHER

INT: PLASTER ✓ | DRY WALL | ROOF COVERING: BU.

ZONE: M-3 | ZONING CHECKED BY: RWB | VARIANCE APPROVED #

SET BACK	FRONT	SIDE	REAR	LOT SIZE
	20	10	10+	132X661

1st Fl.	1080 Sq. Ft.	780	8100
2nd Fl.	Sq. Ft.		
Por.	Sq. Ft.		
Gar.	HED Sq. Ft.	250	1000
Car P.	Sq. Ft.		
Wall	Sq. Ft.		
	Sq. Ft.		

ESTIMATED VALUATION $ 9100

PLANS CHECKED BY | FEE $ 30 00

ELECTRICAL FEES

80810 ✓ 119666
80811 ✓ ✓
80812 ✓ ✓

SIGNS			
TEMP. SERV. AND/OR T. CUR.			
MOTOR	H.P.		
MOTOR	H.P.		
MOTOR	80813 H.P.	✓	✓
MOTOR	H.P.		
MOTOR	H.P.		
FIXTURES			
OUTLETS			
RANGE AND/OR OVEN			
WATER HEATER			
SPACE HEATER			
CONSTRUCTION POLE			
SERVICE ENTRANCE		1	00
RESID. M SQ. FT.		10	80
GARAGE ½¢ SQ. FT.			
PERMIT FEE		1	00

PLANS CHECKED BY | FEE $ 12 80

PLUMBING FEES

1 — PLN		1	7.5
1 — BLD		1	30.00
1 — ELE		1	12.00
DRAINAGE PIPING			
DRINKING FOUNTAIN			
URINAL			
WATER PIPING			
FLOOR DRAIN LB		1	21.25
WATER SOFTENER			
WASHER (AUTO) (SINK)		1	2.50
GARBAGE DISPOSAL			
LAUNDRY TRAY			
KITCHEN SINK		1	2.50
WATER CLOSET		1	2.50
LAVATORY		1	2.50
SHOWER			
BATH TUB		1	2.50
WATER HEATER		1	3.00
SEWAGE DISPOSAL		10	00
HOUSE SEWER			
GAS PIPING		1	50
PERMIT FEE		2	00

PLANS CHECKED BY | FEE $ 21 25

PLAN CHECK FEE	$ 7 50
CONSTRUCTION FEE	$ 30 80
ELECTRICAL FEE 608	$ 12 80
PLUMBING FEE 21 35	$ 21 35
TOTAL FEE	$ 71 55

CASH | CHECK ✓ | M.O. | N.C.

RECEIVED BY: Tompkins | DATE: 8-13-64

WATER TO USE SEPTIC TANK: 1000 Gal. | LEACH LINE: 200 Sq. Ft. | SEEPAGE PIT: Gal.

REMARKS:

JOB ADDRESS: 26727 SHERMAN | OWNER: NEWMAN, MARY A.

COMMUNITY: ROMOLAND | SCHOOL DISTRICT: ROMOLAND | DATE: 8-13-64

USE OF BUILDING: Dwlg + Att Gar | SUPPLEMENT TO PERMIT

DISTRICT	COVERAGE	P.C.	UNITS	VALUATION	OFFICE
P	60	01		9500	Z

PERMIT NUMBER: 119666

DESCRIPTIVE ADDRESS: So. 132' of Lot 61 - Tahquitz | 'B' PERMIT NO.

LEGAL DESCRIPTION: FARMS | BOND $ | SURETY | CASH

GROUP	TYPE	FIRE ZONE	SHEET	MAP	PAGE	LINE
I	V		11		38	

RELEASE BOND DATE | CERT. SENT DATE

FINALED DATE | INSPECTOR | CERTIFICATE OF COMPLIANCE

CONTRACTOR | LICENSE-TYPE # | PLAN FILE #

THIS PERMIT SHALL BECOME VOID IF WORK IS NOT COMMENCED WITHIN 60 DAYS. CESSATION OF WORK FOR 120 DAYS SHALL ALSO CAUSE PERMIT TO BECOME VOID.
I HEREBY AGREE THAT ALL WORK IN CONNECTION WITH THIS PERMIT WILL BE DONE IN ACCORDANCE WITH THE LAWS OF RIVERSIDE COUNTY AND THE STATE OF CALIFORNIA. I ALSO AGREE TO CARRY COMPENSATION INSURANCE UPON MY EMPLOYEES. COMPLIANCE WITH LAWS OF THE STATE OF CALIFORNIA COVERING CONTRACTORS IS ALSO GUARANTEED.

OWNER | CONTRACTOR

MAILING ADD. Box 233 | MAILING ADD.

POST OFFICE ROMOLAND | POST OFFICE R.V.

TEL. 657-3619 BY | TEL. BY

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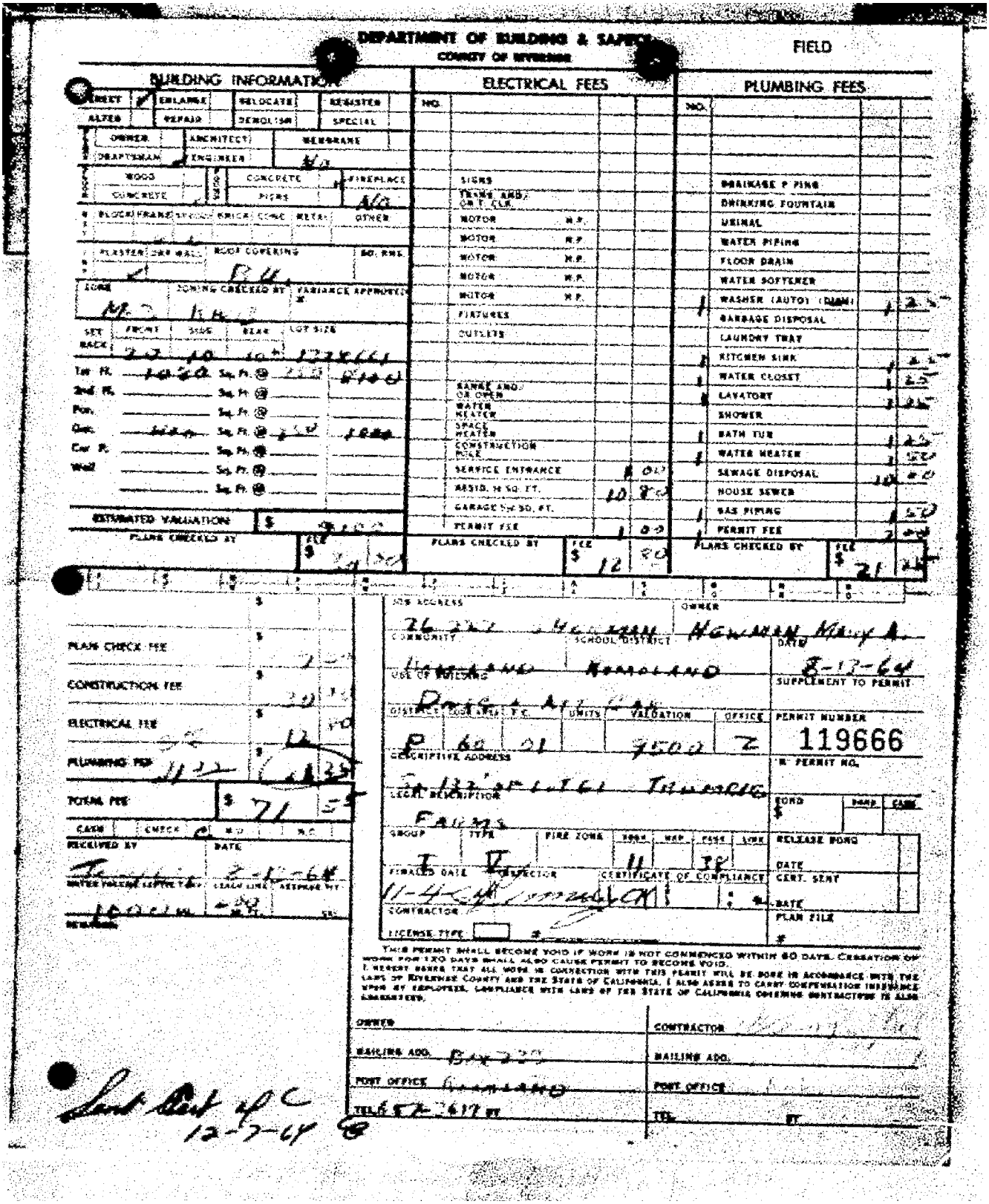

DEPARTMENT OF BUILDING & SAFETY
COUNTY OF RIVERSIDE

FIELD

BUILDING INFORMATION

NEW ✓ | ENLARGE | RELOCATE | REMASTER
ALTER | REPAIR | DEMOLISH | SPECIAL

OWNER | ARCHITECT | ENGINEER | DRAFTSMAN | MEMBRANE

WOOD | CONCRETE | FIREPLACE
CONCRETE | PIERS

BLOCK | FRAME | STEEL | BRICK | CONC. | METAL | OTHER

PLASTER | SHEATHING | ROOF COVERING | SQ. FEET

ZONE | ZONING CHECKED BY | VARIANCE APPROVED

SET BACK: FRONT | SIDE | REAR | LOT SIZE

1st Fl. ____ Sq. Ft. @ ____
2nd Fl. ____ Sq. Ft. @ ____
Port. ____ Sq. Ft. @ ____
Gar. ____ Sq. Ft. @ ____
Car Pt. ____ Sq. Ft. @ ____
Wall ____ Sq. Ft. @ ____
____ Sq. Ft. @ ____

ESTIMATED VALUATION $

PLANS CHECKED BY | FEE $

ELECTRICAL FEES

NO.

SIGNS
TRANS. AMP. OR T. CLR.
MOTOR H.P.
MOTOR H.P.
MOTOR H.P.
MOTOR H.P.
MOTOR H.P.
FIXTURES
OUTLETS
RANGE AND/OR OVEN
WATER HEATER
SPACE HEATER
CONSTRUCTION MISC.
SERVICE ENTRANCE
AREA'D IN SQ. FT.
GARAGE IN SQ. FT.
PERMIT FEE

PLANS CHECKED BY | FEE $

PLUMBING FEES

NO.

DRAINAGE P. PING
DRINKING FOUNTAIN
URINAL
WATER PIPING
FLOOR DRAIN
WATER SOFTENER
WASHER (AUTO) (DIAM.)
GARBAGE DISPOSAL
LAUNDRY TRAY
KITCHEN SINK
WATER CLOSET
LAVATORY
SHOWER
BATH TUB
WATER HEATER
SEWAGE DISPOSAL
HOUSE SEWER
GAS PIPING
PERMIT FEE

PLANS CHECKED BY | FEE $

PLAN CHECK FEE $
CONSTRUCTION FEE $
ELECTRICAL FEE $
PLUMBING FEE $
TOTAL FEE $

CASH | CHECK | M.O. | N.C.
RECEIVED BY | DATE
WATER RELEASE LETTER | CLEAN LINE | SEWAGE MT.
REMARKS

JOB ADDRESS | OWNER
COMMUNITY | SCHOOL DISTRICT | DATE
USE OF BUILDING | SUPPLEMENT TO PERMIT
DISTRICT | SUB AREA | T.C. | UNITS | VALUATION | OFFICE | PERMIT NUMBER
DESCRIPTIVE ADDRESS | R. PERMIT NO.
LEGAL DESCRIPTION | BOND $ | MAP | CARD
GROUP | TYPE | FIRE ZONE | ZONE | MAP | PCEL | LOT | RELEASE BOND DATE
FINALED DATE | INSPECTOR | CERTIFICATE OF COMPLIANCE | CERT. SENT DATE
CONTRACTOR | PLAN FILE #
LICENSE TYPE #

THIS PERMIT SHALL BECOME VOID IF WORK IS NOT COMMENCED WITHIN 90 DAYS. CESSATION OF WORK FOR 120 DAYS SHALL ALSO CAUSE PERMIT TO BECOME VOID.
I HEREBY AGREE THAT ALL WORK IN CONNECTION WITH THIS PERMIT WILL BE DONE IN ACCORDANCE WITH THE LAWS OF RIVERSIDE COUNTY AND THE STATE OF CALIFORNIA. I ALSO AGREE TO CARRY COMPENSATION INSURANCE UPON MY EMPLOYEES. COMPLIANCE WITH LAWS OF THE STATE OF CALIFORNIA CONCERNING CONTRACTORS IS ALSO ENFORCED.

OWNER | CONTRACTOR
MAILING ADD. | MAILING ADD.
POST OFFICE | POST OFFICE
TEL. | BY | TEL. | BY

Land Dist 4C
12-7-64

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APPROVALS

	DATE	INSPECTOR
SET BACKS	9-21-64	
FND. FORMS	9-21-64	
REIN. STEEL		
BOND BEAM		
FRAMING	9-25-64	
VENTS		
ROOF DECK	9-25-64	
LATH EXT.	9-18-64	
LATH INT.	9-18-64	
FINAL	11-4-64	

BUILDING NOTICES

APPROVALS

	DATE	INSPECTOR
TEMP. SERVICE POLE		
CONDUIT		
SERVICE ENT.		
WIRING	9-25-64	
FIXTURES	11-4-64	
SERVICE ENT.	11-4-64	
GROUNDING	11-4-64	
UTIL. CO. NOTIF.	11-4-64	

ELECTRICAL NOTICES

APPROVALS

	DATE	INSPECTION
GROUND PLUMBING	9-18-64	
ROUGH PLUMBING	9-25-64	
SEWER		
SEWAGE DISPOSAL	10-6-64	
GAS	11-4-64	
WATER	11-4-64	
FIXTURES	11-4-64	
UTIL. CO. NOTIF.	11-4-64	

PLUMBING NOTICES

BACK

FRONT

INSIDE ☐ CORNER ☐ KEY

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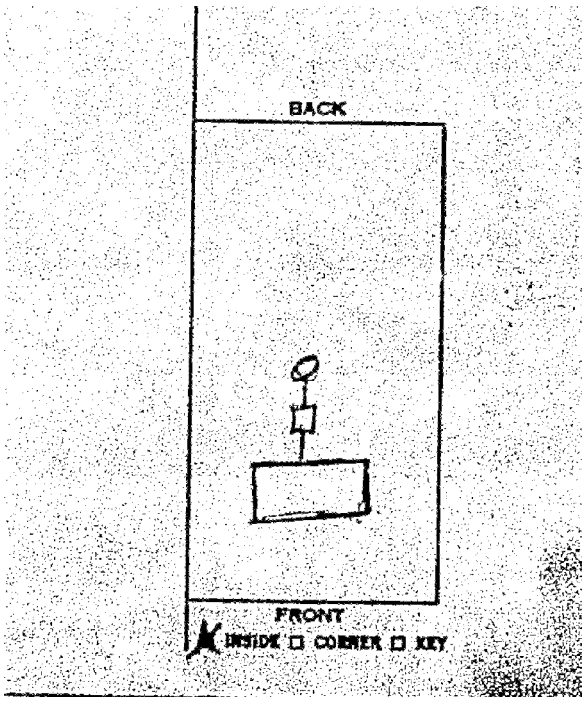

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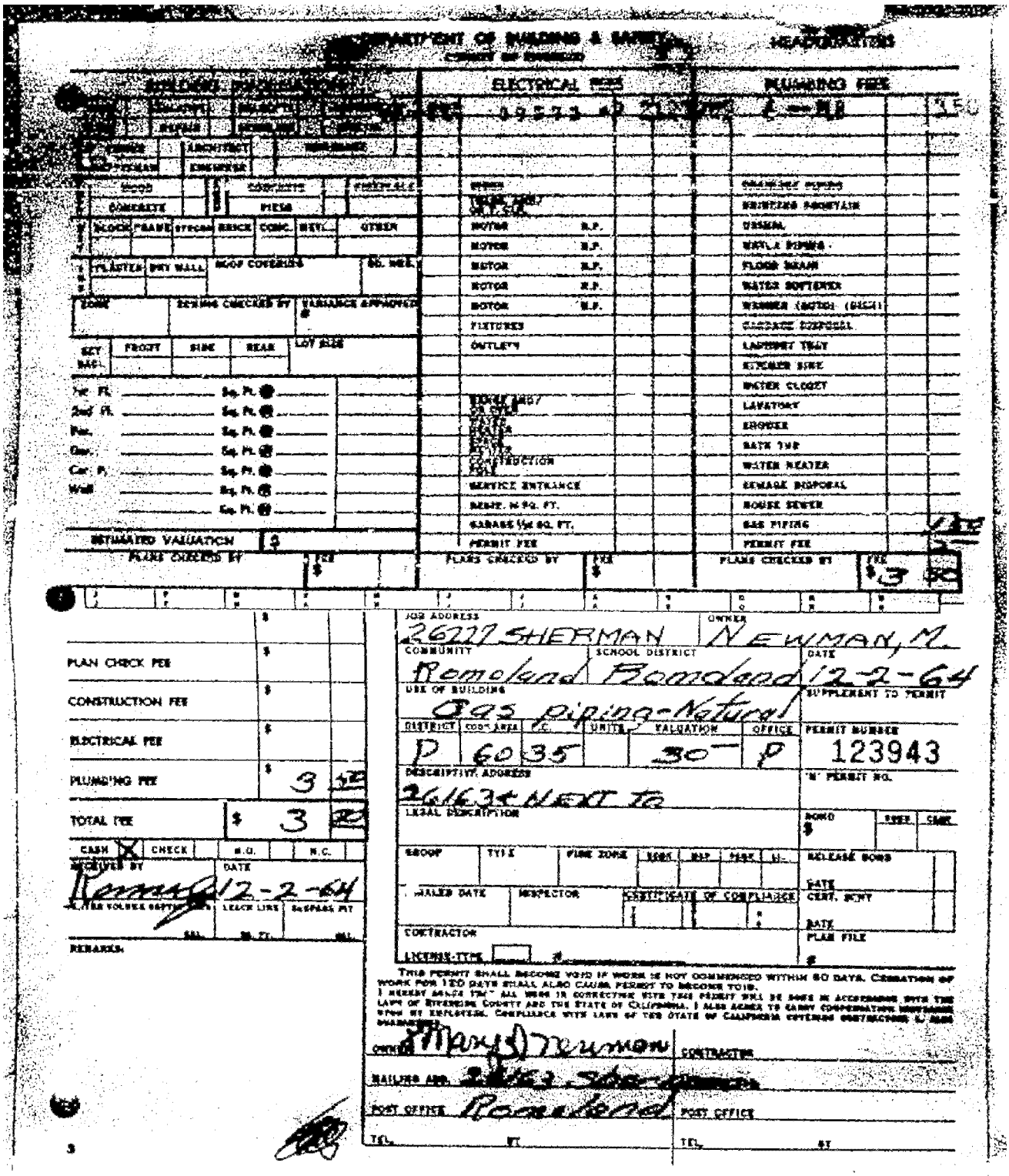

DEPARTMENT OF BUILDING & SAFETY
COUNTY OF LOS ANGELES
HEADQUARTERS

BUILDING PERMIT APPLICATION

ELECTRICAL FEES

PLUMBING FEES

PLAN CHECK FEE $

CONSTRUCTION FEE $

ELECTRICAL FEE $

PLUMBING FEE $ 3 50

TOTAL FEE $ 3 50

CASH X CHECK M.O. N.C.

RECEIVED BY Remag DATE 12-2-64

REMARKS:

JOB ADDRESS 2627 SHERMAN OWNER NEWMAN, M.

COMMUNITY Rowland SCHOOL DISTRICT Rowland DATE 12-2-64

USE OF BUILDING Gas piping-Natural SUPPLEMENT TO PERMIT

DISTRICT P | COMP. AREA 60 35 | P.C. | UNITS | VALUATION 30 | OFFICE P | PERMIT NUMBER 123943

DESCRIPTIVE ADDRESS 2616 3/4 NEXT TO

LEGAL DESCRIPTION

BOND $ | TYPE | SURE

GROUP | TYPE | FIRE ZONE | TOXIC | BLDG | PLBG | H. | RELEASE BOND DATE

MAILED DATE | INSPECTOR | CERTIFICATE OF COMPLIANCE | CERT. MONT DATE

CONTRACTOR

LICENSE TYPE # PLAN FILE #

THIS PERMIT SHALL BECOME VOID IF WORK IS NOT COMMENCED WITHIN 90 DAYS. CESSATION OF WORK FOR 120 DAYS SHALL ALSO CAUSE PERMIT TO BECOME VOID.
I HEREBY AGREE THAT ALL WORK IS CORRECTLY SITE THIS PERMIT WILL BE DONE IN ACCORDANCE WITH THE LAWS OF RIVERSIDE COUNTY AND THE STATE OF CALIFORNIA. I ALSO AGREE TO CARRY COMPENSATION INSURANCE WITH MY EMPLOYEES. COMPLIANCE WITH LAWS OF THE STATE OF CALIFORNIA COVERING CONTRACTORS IS MADE.

OWNER Mary S. Newman CONTRACTOR

MAILING ADD. 2663 Sher[illegible]

POST OFFICE Rowland POST OFFICE

TEL. BY TEL. BY

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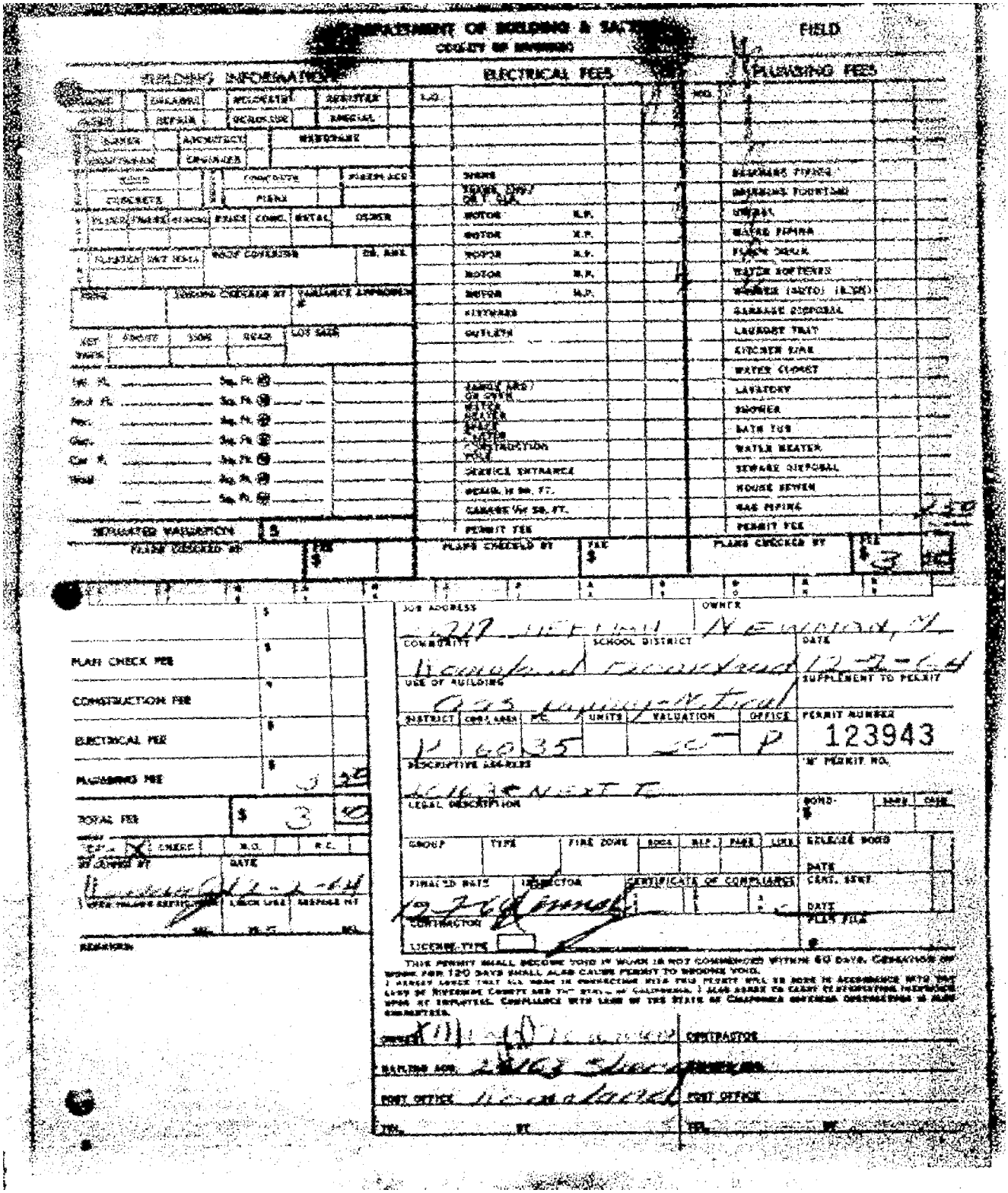

FIELD

BUILDING INFORMATION

ELECTRICAL FEES

PLUMBING FEES

PLAN CHECK FEE

CONSTRUCTION FEE

ELECTRICAL FEE

PLUMBING FEE 3 25

TOTAL FEE $ 3 10

JOB ADDRESS

OWNER

COMMUNITY

SCHOOL DISTRICT

DATE

USE OF BUILDING

SUPPLEMENT TO PERMIT

DISTRICT

PERMIT NUMBER 123943

DESCRIPTIVE LEASE

'M' PERMIT NO.

LEGAL DESCRIPTION

BOND $

RELEASE BOND

DATE

FINALED DATE

INSPECTOR

CERTIFICATE OF COMPLIANCE

CERT. ISSUE DATE

CONTRACTOR

FILES FILE

LICENSE TYPE

THIS PERMIT SHALL BECOME VOID IF WORK IS NOT COMMENCED WITHIN 60 DAYS. CESSATION OF WORK FOR 120 DAYS SHALL ALSO CAUSE PERMIT TO BECOME VOID.

I HEREBY AGREE THAT ALL WORK IN CONNECTION WITH THIS PERMIT WILL BE DONE IN ACCORDANCE WITH THE LAWS OF RIVERSIDE COUNTY AND THE STATE OF CALIFORNIA. I ALSO AGREE TO GIVE CLEAR AND SUFFICIENT INFORMATION UPON ALL INSPECTIONS. COMPLIANCE WITH LAWS OF THE STATE OF CALIFORNIA GOVERNING CONTRACTORS IS ALSO CONCERNED.

OWNER

CONTRACTOR

MAILING ADD.

POST OFFICE

POST OFFICE

TEL.

ST.

TEL.

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APPROVALS

	DATE	INSPECTOR
SET BACKS		
FND. FORMS		
REINF. STEEL		
MONO SLAB		
FRAMING		
VENTS		
ROOF DECK		
LATH EXT.		
LATH INT.		
FINAL		

BUILDING NOTICES

APPROVALS

	DATE	INSPECTOR
TEMP. SERVICE POLE		
CONDUIT		
SERVICE EXT.		
WIRING		
FIXTURES		
SERVICE EXT.		
GROUNDING		
UTIL. CO. NOTIFIED		
FINAL		

ELECTRICAL NOTICES

APPROVALS

	DATE	INSPECTOR
SEWER TAP PAID		
POWER SUPPLIED		
SEWER		
SEWAGE DISPOSAL		
P.O.E.		
WATER		
FIXTURES		
UTIL. CO. NOTIF.		

PLUMBING NOTICES

BACK

FRONT

□ BEAM □ POST □ KEY

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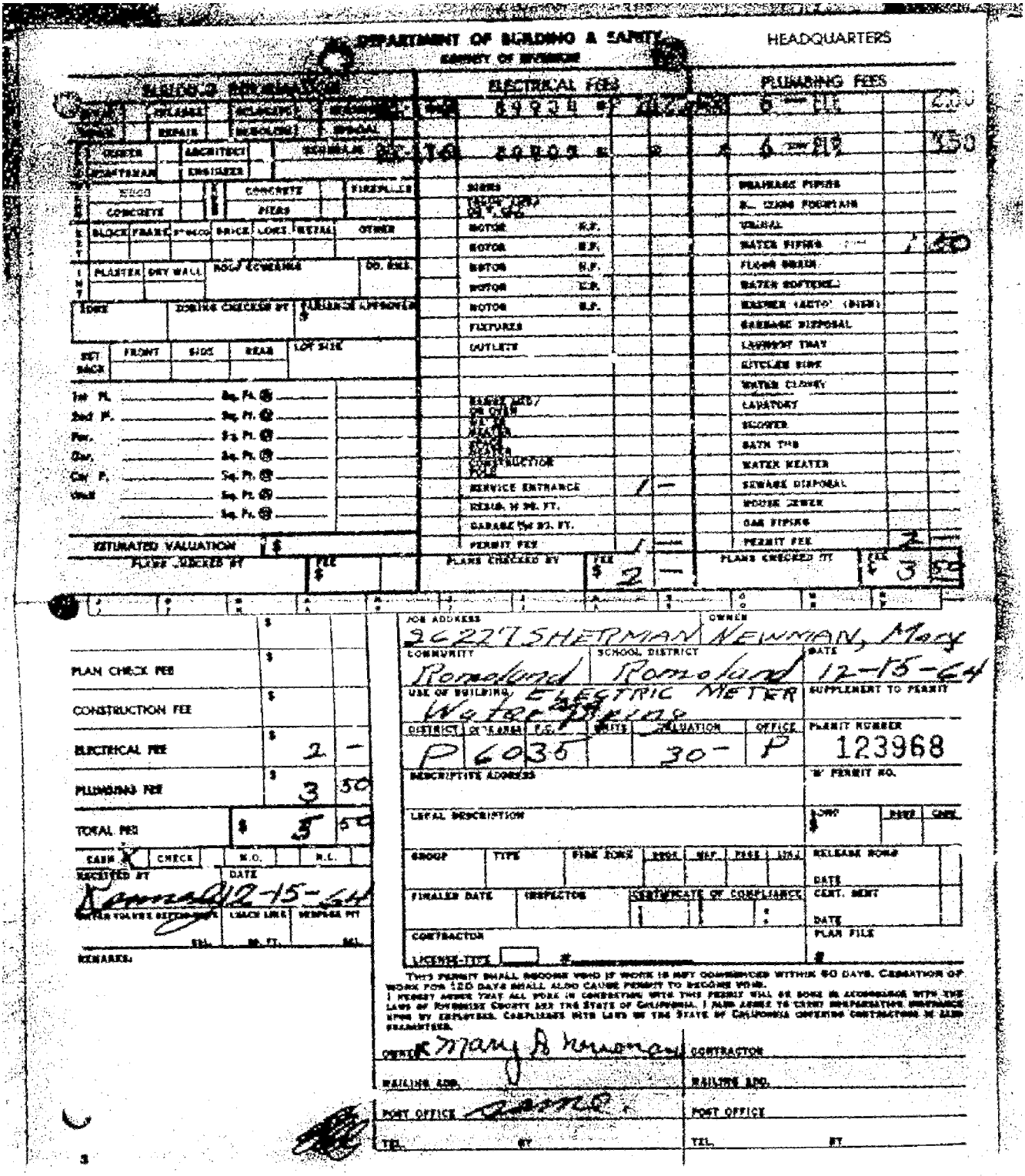

DEPARTMENT OF BUILDING & SAFETY
COUNTY OF RIVERSIDE

HEADQUARTERS

ELECTRICAL FEES

PLUMBING FEES

PLAN CHECK FEE	$
CONSTRUCTION FEE	$
ELECTRICAL FEE	$ 2 —
PLUMBING FEE	$ 3 50
TOTAL FEE	$ 5 50

CASH X CHECK M.O. N.C.

RECEIVED BY Teresa DATE 12-15-64

REMARKS:

JOB ADDRESS 2622 SHERMAN OWNER NEWMAN, Mary

COMMUNITY Romoland SCHOOL DISTRICT Romoland DATE 12-15-64

USE OF BUILDING Water Service ELECTRIC METER SUPPLEMENT TO PERMIT

DISTRICT P | SUBDIV. | LOT | BLOCK | VALUATION 30- | OFFICE P | PERMIT NUMBER 123968

DESCRIPTIVE ADDRESS | 'B' PERMIT NO.

LEGAL DESCRIPTION | ZONE | AREA | CODE

GROUP | TYPE | FIRE ZONE | BASE | MAP | PAGE | UNIT | RELEASE NOTES | DATE

FINALED DATE | INSPECTOR | CERTIFICATE OF COMPLIANCE | CERT. SENT | DATE

CONTRACTOR | PLAN FILE

LICENSE-TYPE # #

THIS PERMIT SHALL BECOME VOID IF WORK IS NOT COMMENCED WITHIN 90 DAYS. CESSATION OF WORK FOR 120 DAYS SHALL ALSO CAUSE PERMIT TO BECOME VOID.
I HEREBY AGREE THAT ALL WORK IN CONNECTION WITH THIS PERMIT WILL BE DONE IN ACCORDANCE WITH THE LAWS OF RIVERSIDE COUNTY AND THE STATE OF CALIFORNIA. I ALSO AGREE TO CARRY WORKMEN'S COMPENSATION INSURANCE EITHER BY EMPLOYERS. COMPLIANCE WITH LAWS OF THE STATE OF CALIFORNIA GOVERNING CONTRACTORS IS ALSO REQUIRED.

OWNER Mary A Newman CONTRACTOR

MAILING ADD. MAILING ADD.

POST OFFICE Romoland POST OFFICE

TEL. BY TEL. BY

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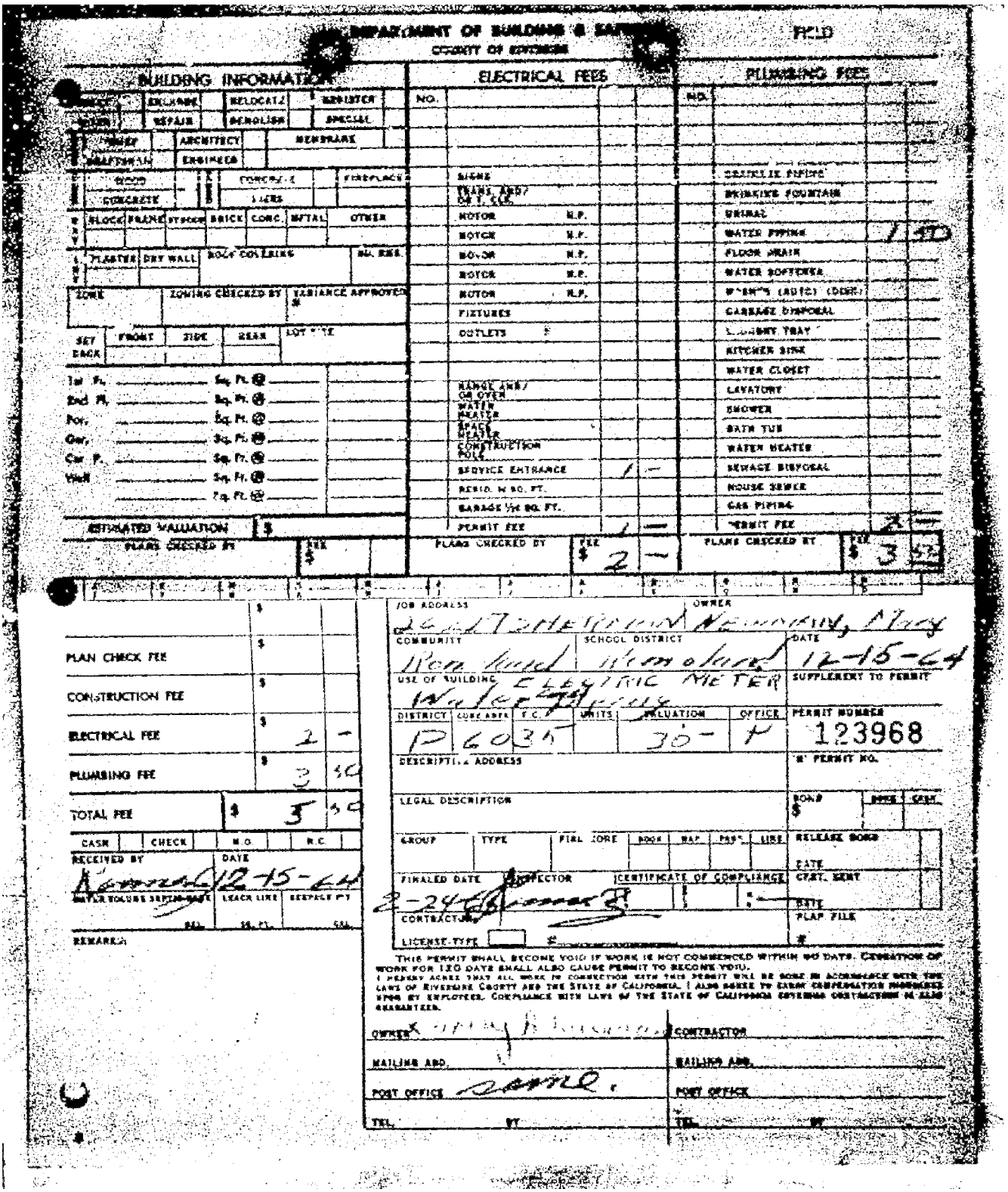

DEPARTMENT OF BUILDING & SAFETY
COUNTY OF RIVERSIDE

FIELD

BUILDING INFORMATION

ELECTRICAL FEES

PLUMBING FEES

PLAN CHECK FEE $

CONSTRUCTION FEE $

ELECTRICAL FEE $ 2 —

PLUMBING FEE $ 3 —

TOTAL FEE $ 5 —

CASH | CHECK | M.O. | N.C.

RECEIVED BY [illegible] DATE 12-15-64

REMARKS

JOB ADDRESS [illegible] OWNER [illegible] Mary

COMMUNITY Ron Lund SCHOOL DISTRICT Hemet DATE 12-15-64

USE OF BUILDING ELECTRIC METER SUPPLEMENT TO PERMIT

Water Service

DISTRICT P | CODE AREA 6031 | F.C. | UNITS | VALUATION 30 — | OFFICE P | PERMIT NUMBER 123968

DESCRIPTION, ADDRESS | 'A' PERMIT NO.

LEGAL DESCRIPTION | BOND $ | RELEASE BOND DATE

GROUP | TYPE | FIRE ZONE | BOOK | MAP | PAR. | LINE

FINALED DATE 2-24-65 INSPECTOR [illegible] | CERTIFICATE OF COMPLIANCE | CERT. SENT DATE

CONTRACTOR | PLAN FILE #

LICENSE-TYPE #

THIS PERMIT SHALL BECOME VOID IF WORK IS NOT COMMENCED WITHIN 90 DAYS. CESSATION OF WORK FOR 120 DAYS SHALL ALSO CAUSE PERMIT TO BECOME VOID.
I HEREBY AGREE THAT ALL WORK IN CONNECTION WITH THIS PERMIT WILL BE DONE IN ACCORDANCE WITH THE LAWS OF RIVERSIDE COUNTY AND THE STATE OF CALIFORNIA. I ALSO AGREE TO EARN COMPENSATION INSURANCE (OR SELF INSURANCE) FOR MY EMPLOYEES. COMPLIANCE WITH LAWS OF THE STATE OF CALIFORNIA GOVERNING CONTRACTORS IS ALSO GUARANTEED.

OWNER [illegible] CONTRACTOR

MAILING ADD. MAILING ADD.

POST OFFICE Hemet. POST OFFICE

TEL. BY TEL. BY

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DEPARTMENT OF BUILDING & SAFETY
COUNTY OF RIVERSIDE

CONSTRUCTION ESTIMATE

1ST FL.	SQ. FT. @	
2ND FL.	SQ. FT. @	
POR.	SQ. FT. @	
GAR.	SQ. FT. @	
CAR P.	SQ. FT. @	
WALL	SQ. FT. @	
	SQ. FT. @	

ESTIMATED CONSTRUCTION VALUATION $

NOTE: Not to be used as property tax valuation

MECHANICAL FEES

VENT SYSTEM ☐ FAN ☐ EVAP. COOL ☐ HOOD	
APPLIANCE	
FURNACE ☐ UNIT ☐ WALL ☐ FLOOR ☐ SUSPENDED	
AIR HANDLING UNIT ____ CFM	
GAS PIPE ☐ NATURAL ☐ L.P.G ☐ OIL	
COMPRESSOR ____ HP	
APPLIANCE VENT	
ABSORPTION SYSTEM ____ B.T.U.	
INCINERATOR ☐ DOMESTIC ☐ INDUS. OR COMM	
HEATING SYSTEM ☐ FORCED ☐ GRAVITY	
BOILER ____ B.T.U.	
PERMIT FEE	
MOBILE HOME HOOKUP FEE $	

ELECTRICAL FEES

NO.		
	MOTOR 1 OR LESS H.P.	
	MOTOR 5 OR LESS H.P.	
	MOTOR 20 OR LESS H.P.	
	____ K.W. UNITS	
	SIGN	
	TRANS FORMER ____ K.W.	
	OUTLETS	
	FIXTURE OR SOCKET	
	CONST. SERV. ENTRANCE	
	POLE	
	AMPERES SERV. ENT.	
	SQ. FT. @ ¢	
	SQ. FT. @ ¢	
	SQ. FT. RESID. @1¢	
	SQ. FT. GARAGE @½¢	
	BALANCE OF MIN. FEE	
	PERMIT FEE	

PLUMBING FEES

NO.		
1	LEACH LINE	7 00
	DRAINAGE PIPING	
	DRINKING FOUNTAIN	
	URINAL	
	WATER PIPING	
	FLOOR DRAIN	
	WATER SOFTENER	
	WASHER (AUTO) DISH	
	GARBAGE DISPOSAL	
	LAUNDRY TRAY	
	KITCHEN SINK	
	WATER CLOSET	
	LAVATORY	
	SHOWER	
	BATH TUB	
	WATER HEATER	
	SEWAGE DISPOSAL	
	HOUSE SEWER	
	GAS PIPING	
1	PERMIT FEE	2 00

PERMIT NO.	TOTAL FEES	MOB. HK. FEE	MICROFILM	MECH. FEE	DBL.	PL. CK. FEE	CONST. FEE	DBL.	ELECT. FEE	DBL.	SMI FEE	FEE	PLUMB. FEE	DBL.
238805	7 00												7 00	

	J	F	M	A	M	J	J	A	S	O	N	D
73												
74												
75												

JOB ADDRESS: 26227 SHERMAN RD — OWNER: WILLIS

USE OF BUILDING: ADD LEACH LINE — F.C. — DATE: 11-28-73 — PERMIT NO: 238805

COMMUNITY	DST	UNITS	ROOMS	VALUATION	SUPP. TO PERMIT	OFFICE
ROMOLAND	4					N

LEGAL DESCRIPTION: N 80 FT OF S 170 FT OF LOT 62

SET BACK	LOT SIZE	ZONE	USE NO.	GRP	TYPE	CK BY
F $ R						

BOND ART.	PLAN NO.	PLAN CHECKER	FINAL DATE	INSPECTOR

NAME OF CONST. LENDER | BRANCH OF BLE | NO LENDER INVOLVED

ADDRESS | CITY | STATE

M.H. HOOKUP FEE		$
MICROFILM FEE	COPIES	$
MECHANICAL FEE	DBL	$
PLAN CHECK FEE		$
CONSTRUCTION FEE	DBL	$
ELECTRICAL FEE	DBL	$
SMI FEE		$
FEE		$
PLUMBING FEE	DBL	$ 7 00
TOTAL FEES		$ 7 00

THIS PERMIT SHALL BECOME VOID IF WORK IS NOT COMMENCED WITHIN 60 DAYS. CESSATION OF WORK FOR 120 DAYS SHALL ALSO CAUSE PERMIT TO BECOME VOID.

I HEREBY AGREE THAT ALL WORK IN CONNECTION WITH THIS PERMIT WILL BE DONE IN ACCORDANCE WITH THE LAWS OF RIVERSIDE COUNTY AND THE STATE OF CALIFORNIA. I ALSO AGREE TO CARRY COMPENSATION INSURANCE UPON MY EMPLOYEES. COMPLIANCE WITH THE LAWS OF THE STATE OF CALIFORNIA COVERING CONTRACTORS IS ALSO GUARANTEED.

I HEREBY CERTIFY THAT THE INDIVIDUAL WHO PREPARED THE PLANS AND SPECIFICATIONS HAS DONE SO IN ACCORDANCE WITH SECTION 5541 OF THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA.

CASH ☐ CHECK ☑ M.O. ☐ N.C. ☐

RECEIVED BY: Rec

SEWAGE SYSTEM | I | LI | P

TREES REQUIRED | YES | NO

INFORMATION: Plot

OWNER	CONTRACTOR
Darlene Wigfrey	
ADDRESS: 26227 Sherman Rd	ADDRESS
CITY: Romoland Ca	CITY
TEL. NO.: 657-6203	TEL. NO. / LICENSE

FORM 284 200 (Rev. 11/73)

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DEPARTMENT OF BUILDING & SAFETY
COUNTY OF RIVERSIDE

CONSTRUCTION ESTIMATE

1ST FL.	SQ. FT. @	
2ND FL.	SQ. FT. @	
POR.	SQ. FT. @	
GAR.	SQ.FT. @	
CAR P.	SQ. FT. @	
WALL	SQ.FT. @	
	SQ. FT. @	

ESTIMATED CONSTRUCTION VALUATION $

NOTE: Not to be used as property tax valuation

MECHANICAL FEES

VENT SYSTEM ☐ FAN ☐ EVAP. COOL ☐ HOOD
APPLIANCE
FURNACE ☐ UNIT ☐ WALL ☐ FLOOR ☐ SUSPENDED
AIR HANDLING UNIT ____ CFM
GAS PIPE ☐ NATURAL ☐ L.P.G. ☐ OIL
COMPRESSOR ____ HP
APPLIANCE VENT
ABSORPTION SYSTEM ____ B.T.U.
INCINERATOR ☐ DOMESTIC ☐ INDUS. OR COMM.
HEATING SYSTEM ☐ FORCED ☐ GRAVITY
BOILER ____ B.T.U.
PERMIT FEE
MOBILE HOME HOOKUP FEE $

ELECTRICAL FEES

NO.

MOTOR 1 OR LESS H.P.
MOTOR 5 OR LESS H.P.
MOTOR 20 OR LESS H.P.
____ K.W. UNITS
SIGN
TRANSFORMER ____ K.W.
OUTLETS
FIXTURE OR SOCKET
CONST. SERV. ENTRANCE
POLE
AMPERES SERV. ENT.
SQ. FT. @ ¢
SQ. FT. @ ¢
SQ. FT. RESID. @1¢
SQ. FT. GARAGE @½¢
BALANCE OF MIN. FEE
PERMIT FEE

PLUMBING FEES

DST 4

NO.			
1	LEAD LINE	5	00
	DRAINAGE PIPING		
	DRINKING FOUNTAIN		
	URINAL		
	WATER PIPING		
	FLOOR DRAIN		
	WATER SOFTENER		
	WASHER (AUTO) (DISH)		
	GARBAGE DISPOSAL		
	LAUNDRY TRAY		
	KITCHEN SINK		
	WATER CLOSET		
	LAVATORY		
	SHOWER		
	BATH TUB		
	WATER HEATER		
	SEWAGE DISPOSAL		
	HOUSE SEWER		
	GAS PIPING		
1	PERMIT FEE	2	00

PERMIT NO.	TOTAL FEES	MOB. HM. FEE	MICRO FEE	MECH. FEE	OBL	PL. CK. FEE	CONST. FEE	OBL	ELECT. FEE	OBL	SMIP FEE	FEE	PLUMB. FEE	OBL
238805	7 00												7 00	

	J	F	M	A	M	J	J	A	S	O	N	D
73											0	
74												
75												

M.H. HOOKUP FEE $
MICROFILM FEE COPIES $
MECHANICAL FEE OBL $
PLAN CHECK FEE $
CONSTRUCTION FEE OBL $
ELECTRICAL FEE OBL $
SMI FEE $
FEE $
PLUMBING FEE OBL $ 7 00
TOTAL FEES $ 7 00

CASH ☐ CHECK ☑ M.O. ☐ N.C. ☐
RECEIVED BY
SEWAGE SYSTEM Y N
FEES RECEIVED YES NO
INFORMATION

JOB ADDRESS 26251 CHILDRESS RD
OWNER WILLIS
USE OF BUILDING ADD LEAD LINE
F.C.
DATE 11-25-73
PERMIT NO. 238805
COMMUNITY RAINBOW
DST 4
UNITS
ROOMS
VALUATION
SUPP. TO PERMIT
OFFICE M

LEGAL DESCRIPTION
N 80 FT OF S 170 FT OF LOT 62

SET BACK F S R
LOT SIZE
ZONE
USE NO.
GRP
TYPE
FT. BY

BOND AMT.
PLAN NO.
PLAN CHECKER
FINAL DATE 11-30-73
INSPECTOR

NAME OF CONST. LENDER
BRANCH OFFICE
NO LENDER INVOLVED
ADDRESS
CITY
STATE

THIS PERMIT SHALL BECOME VOID IF WORK IS NOT COMMENCED WITHIN 60 DAYS. CESSATION OF WORK FOR 120 DAYS SHALL ALSO CAUSE PERMIT TO BECOME VOID.

I HEREBY AGREE THAT ALL WORK IN CONNECTION WITH THIS PERMIT WILL BE DONE IN ACCORDANCE WITH THE LAWS OF RIVERSIDE COUNTY AND THE STATE OF CALIFORNIA. I ALSO AGREE TO CARRY COMPENSATION INSURANCE UPON MY EMPLOYEES. COMPLIANCE WITH THE LAWS OF THE STATE OF CALIFORNIA COVERING CONTRACTORS IS ALSO GUARANTEED.

I HEREBY CERTIFY THAT THE INDIVIDUAL WHO PREPARED THE PLANS AND SPECIFICATIONS HAS DONE SO IN ACCORDANCE WITH SECTION 5537 OF THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA.

OWNER Mendelsohn
ADDRESS 27127 Bradley Rd
CITY Homeland Ca
TEL NO. 926-3

CONTRACTOR
ADDRESS
CITY
TEL NO. LICENSE

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NO	OPERATION	DATE	INSPECTOR
	BUILDING APPROVALS		
1	Set Back		
2	Pigs & Piers		
2A	Slab Grade		
3	Steel		
4	Grout Blocks		
5	Bond Beams		
6	Roof Deck		
7	Framing		
8	Vents		
9	Garage Fire Wall		
10	Fireplace P.L. ☐		
10A	Fireplace T.O. ☐		
11	Exterior Lath		
12	Internal Lath		
12A	Drywall		
13	Exterior Grade		
14	Final		
	PLUMBING APPROVALS		
15	Ground Plumb		
16	Water Piping		
17	Rough Plumb		
18	Vents		
19	Sewage Disposal L/L	11-8-75	[signature]
20	Sewer		
21	Water Heater		
22	Water Softener		
23	Water Service		
24	Gas Test		
25	Final	11-20-75	[signature]
	ELECTRICAL APPROVALS		
26	Power Pole		
27	Conduit		
28	Service Entrance		
29	Wiring		
29A	Grounding Wire		
30	Fixtures		
31	Service		
32	Final		

NO	OPERATION	DATE	INSPECTOR
	MECHANICAL APPROVALS		
33	Ventilation System		
34	Plenums & Ducts		
35	Furnace Compart.		
36	Inlets & Outlets		
37	Combustion Air		
38	Compressor		
39	Appl. Clearance		
40	Fire Damper		
41	Smoke Detention Device		
42	Commercial Hood		
43	Final		

OPER NO	ADDITIONAL INFORMATION

Tank Pit L. Line

SEWER DISPOSAL LOCATION

BACK FRONT

☐ INSIDE ☐ OUTSIDE ☐ KEY

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238805

NOTICE: THIS IS NOT A BUILDING PERMIT

Dist. Office 4

APPLICATION TO CONSTRUCT
DEPARTMENT OF BUILDING AND SAFETY
COUNTY OF RIVERSIDE

Permit No.

OWNER

Owner	Architect	Contractor
Scottell Willis		
Address 1258 W. 81 Place	Address	Address
City Los Angeles Ca	City	City
Phone 651-6203	Phone	Phone

I (we) the undersigned, hereby certify and acknowledge that I (we) have read the application and agree that if Curb and Gutter, and Paving, and/or Dedication of right of way is required by the County of Riverside, the Riverside County Department of Building and Safety shall not make a Final Inspection until said requirements have been met. I am also aware that no work is to be done within the County R/W without an encroachment permit.

NOW, therefore, it is agreed that I (we) will not occupy said property and will not cause said property to be occupied until I (we) have complied with all laws of the County of Riverside and the State of California governing said property.

DATE 11-28- SIGNATURE OF OWNER AND/OR AGENT Darlene Wingfield

Approval by Signature from the Following Departments Listed Below
Must Be Obtained Prior to the Issuing of a Construction Permit.

LAND USE DIVISION BUILDING AND SAFETY

LOCATION OF JOB 26227 SHERMAN RD.

LEGAL DESCRIPTION OF PROPERTY LOT 62, N 80 FT OF S 170 FT LOT 62 OF RAMBLE FARMS

COMMUNITY REMOLAND

NO. OF SUBMITTED PLANS

CASE NO.

TYPE OF CONSTRUCTION ADD LEACH LINE.

USE OF STRUCTURE

SINGLE FAMILY	☐	DUPLEX	☐
APARTMENTS	☐	AGRIC.	☐
COMMERCIAL	☐	INDUSTRIAL	☐
		ALTERATIONS	☐

NO. OF PARKING SPACES REQUIRED ____ NO. OF BUILDINGS NOW EXISTING ____

ZONE ____ SETBACKS ____ FRONT ____ SIDE ____ REAR ____

GRADING PERMIT REQUIRED YES ☐ NO ☐

SETBACK ORDINANCE # ____ OF ____ FEET REQUIRED ON ____ STREET

DATE 11-26-73 SIGNATURE OF LAND USE OFFICIAL [illegible]

ROAD DEPARTMENT

DEDICATION REQUIRED: YES ☐ NO ☐ NO. OF FEET ____

CURB AND GUTTER REQUIRED: YES ☐ NO ☐ ____ STREET

THE ABOVE CONSTRUCTION? YES ☐ NO ☐

CAN CURB AND GUTTER FEASIBLY BE INSTALLED? YES ☐ NO ☐

HAS AN ACCEPTABLE APPLICATION BEEN MADE FOR ENCROACHMENT PERMIT FOR DRIVEWAY AND STREET IMPROVEMENT? YES ☐ NO ☐

DATE ____ SIGNATURE OF ROAD DEPT. OFFICIAL ____

HEALTH DEPT.

SWIMMING POOLS PUBLIC ____

SEWAGE DISPOSAL ____

FOOD ESTABLISHMENT ____

OTHER DEPARTMENTS

WATER POLLUTION ____ REMARKS ____

FLOOD CONTROL ____

AIR POLLUTION ____

DIV OF HWY ____

YOUR PROPERTY MAY BE SUBJECT TO FLOOD. RIVERSIDE COUNTY ASSUMES NO RESPONSIBILITY IN EVENT OF FLOOD.

284-199 A 12/69

CANARY — FILE, PINK — APPLICANT

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You are now signed in ×

Request #22-219

CLOSED

As of April 12, 2022, 3:46pm

Details

Please email original building permits, Certificate of Occupancy, utility permits, grading permits, demolition permits for **26227 Sherman Road** (APNs include: 331-110-023, 331-110-038 and 331-110-039.

Thank you !!

Received

April 8, 2022 via web

Departments

Building

Requester

Margaret Thomas
mathomas@partneresi.com
2154 Torrance Boulevard, Torrance, CA 90501
3109275371
Partner Engineering and Science, Inc.

Documents

Public

(none)

Requester

(none)

Staff

Point of Contact

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Rachel Kleinpeter

Timeline

Request Closed Public

The City of Menifee has received and reviewed Request No. 22-219.

This letter shall serve as notification of the City's intent to comply with your request for public records, pursuant to the California Public Records Act (Government Code Section 6250 et seq.).

The City is not in possession of any records that are responsive to this request. Unfortunately, we are unable to produce records that are responsive to this request.

Please check with Riverside County for records prior to incorporation(2008).

April 11, 2022, 5:26pm

External Message Requester + Staff

Thank you for submitting your request to the City of Menifee.
Per the Records Request Act, we will make every effort to respond to you within ten days and update you if there are any changes. Response times and production of records may be delayed as a result of limited staffing and City Hall closures during the ongoing COVID-19 national, state, and local emergency. We appreciate your patience. Please contact our office 951-672-6777 if you have any questions.

April 8, 2022, 10:19am

Department Assignment Public

Building

April 8, 2022, 10:19am

Request Opened Public

Request received via web

April 8, 2022, 10:19am

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S MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY
SSUMED FOR THE ACCURACY OF THE DATA SHOWN. ASSESSOR'S PARCEL
' NOT COMPLY WITH LOCAL LOT-SPLIT OR BUILDING SITE ORDINANCES.

E1/2 SEC. 15 T. 5S, R. 3W

CITY OF MENIFEE

TRA 089-232

331-11

22-39

SHERMAN RD

ETHANAC ROAD

TRUMBLE

1" = 200'

Legend
- Lot Lines
- Right-Of-Way
- Old Lot Lines
- Reference R.O.W
- Other Easements
- Lease Area
- Subdivision Tic Mark

Bk 329 Pg 15	Pg 14	Pg 35
Bk 329 Pg 24	Pg 11	Pg 34
Bk 329 Pg 25	Pg 10	Pg 46

Date	Old Number	New Number
8/1/1974	2	30
3/1/1979	929	29
9/1/1987	19-22	31
1/1/2005	12	32-33
1/1/2005	1,33	34
8/1/2005	28	35-37
8/1/2006	37	38-39
7/1/2007	36	40,ST
4/17/2015	40	41,42

ASSESSOR'S MAP BK331 PG. 11
Riverside County, Calif.

jtobin

Data *
RS 58/14-36
SBE MAPS 148-33-32,32B

Map Reference *
MB 11/38 TRUMBLE FARMS

May 2015

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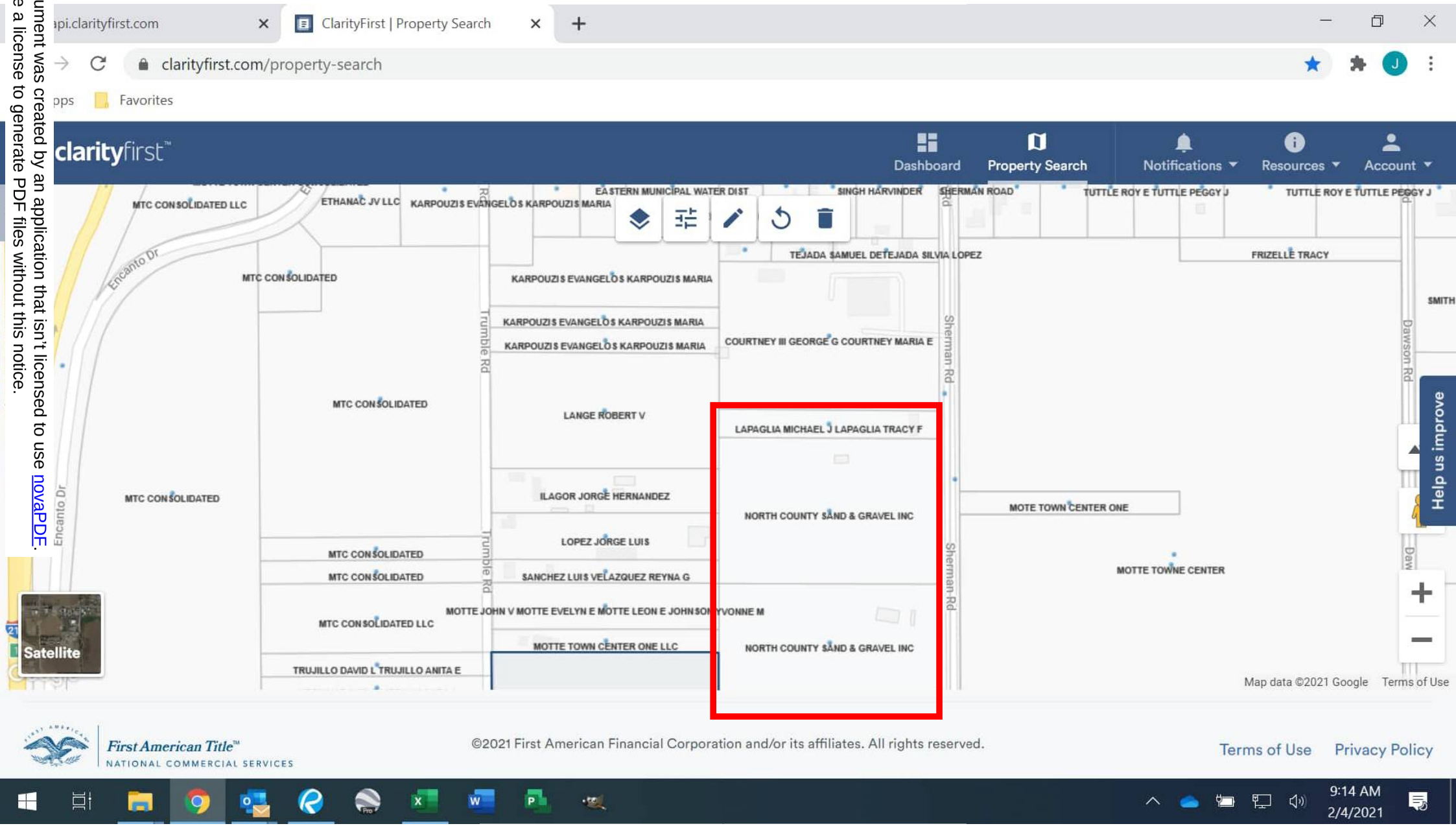

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9:14 AM
2/4/2021

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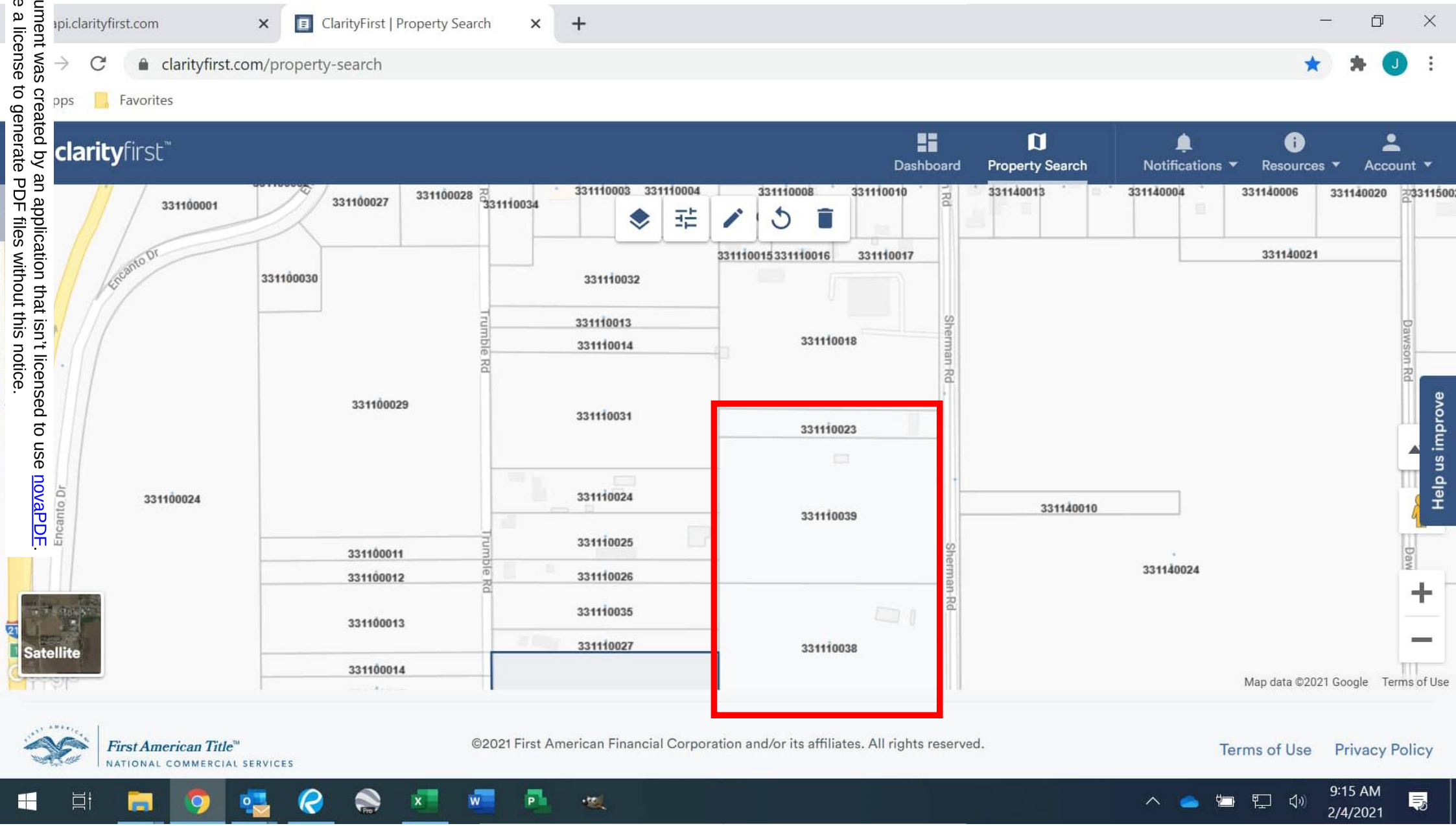
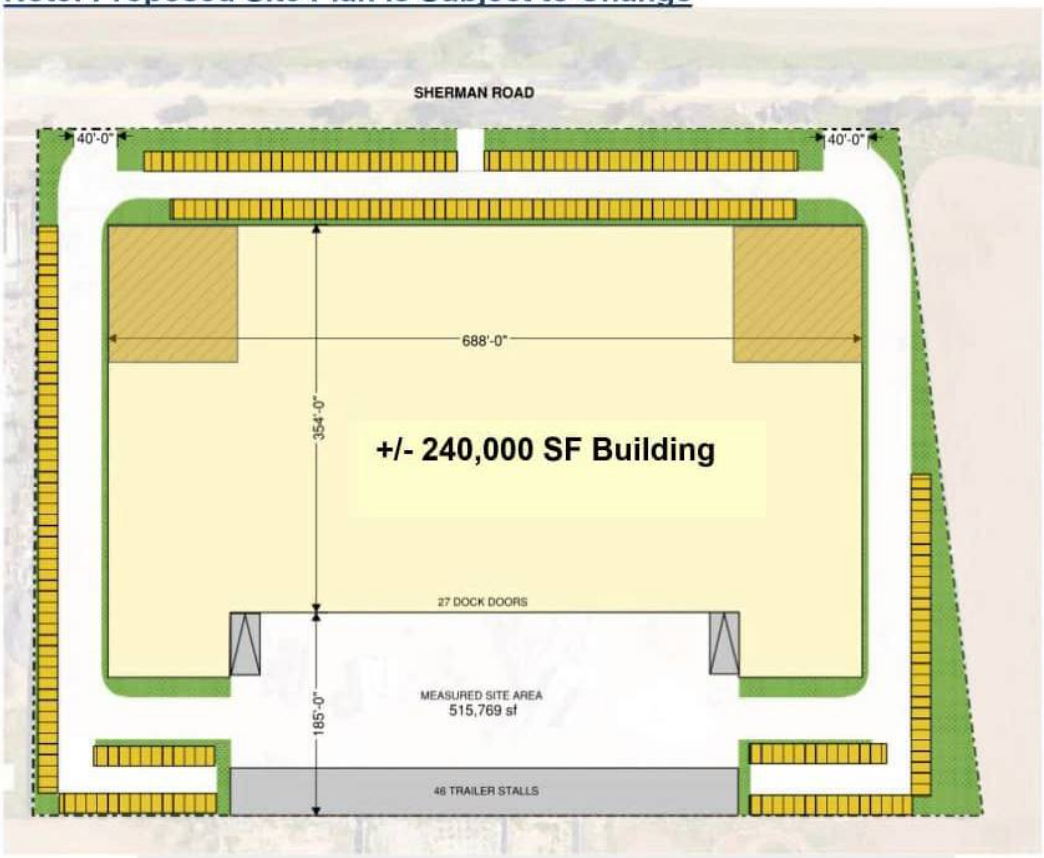


EXHIBIT D

SITE PLAN / AERIAL

Note: Proposed Site Plan is Subject to Change



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ENVIRONMENTAL LIEN AND AUL REPORT

Order Number:
22-366047.1

AFX Reference Number:
79-247445-47

Subject Property:
26227 SHERMAN ROAD
MENIFEE, CA 92585

Effective:
03/29/2022

Completed:
04/06/2022

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999 Monterey St. Suite 380, San Luis Obispo, CA 93401

(877) 848-5337 / www.afxllc.com

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SOURCES SEARCHED

Source 1: RIVERSIDE COUNTY RECORDER'S OFFICE
Source 2: CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
Source 3: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

TARGET PROPERTY

Current Owner(s): MICHAEL J. LAPAGLIA AND TRACY F. LAPAGLIA, HUSBAND AND WIFE AS JOINT TENANTS
Street Address: 26227 SHERMAN ROAD
City, State Zip Code: MENIFEE, CA 92585
APN/Parcel/PIN: 331-110-023 County: RIVERSIDE
Legal Description: 1.16 ACRES IN POR LOT 68 MB 011/038 TRUMBLE FARMS

PROPERTY OWNERSHIP

Instrument: **GRANT DEED**

Date Recorded: 06/23/2006 Instrument: 2006-0453646
Dated: 03/28/2006
Grantor(s): LELAND PHILLIPS, AN MARRIED MAN
Grantee(s): MICHAEL J. LAPAGLIA AND TRACY F. LAPAGLIA, HUSBAND AND WIFE AS JOINT TENANTS

ENVIRONMENTAL LIENS

NO ENVIRONMENTAL LIENS FOUND FOR SUBJECT PROPERTY.

ACTIVITY AND USE LIMITATIONS (AUL)

NO AUL FOUND FOR SUBJECT PROPERTY.

LEASES

NO LEASES FOUND FOR SUBJECT PROPERTY.

MISCELLANEOUS INSTRUMENTS

NO MISCELLANEOUS INSTRUMENTS FOUND FOR SUBJECT PROPERTY.

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THANK YOU FOR YOUR ORDER

For questions, please contact our office at 1-877-848-5337.

Order Number:
22-366047.1

AFX Reference Number:
79-247445-47

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Our professional network of trained researchers follow established industry protocols and use client-supplied property information to complete this Environmental Lien and AUL report. The research is conducted at all appropriate government offices based on the location of the subject property. This would include City, County, State, Federal and Tribal offices as needed. The report includes:

- Current deed information (i.e. grantor, grantee, recording dates)
- Legal Description
- Environmental Lien information
- Activity and Use Limitation information
- Any Environmental Liens and/or documents referencing AULs that are listed within our summary report

DISCLAIMER

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ENVIRONMENTAL LIEN AND AUL REPORT

Order Number:
22-366047.1

AFX Reference Number:
79-247447-47

Subject Property:
26227 SHERMAN ROAD
MENIFEE, CA 92585

Effective:
03/29/2022

Completed:
04/07/2022

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Order #: 22-366047.1 | Reference #: 79-247447-47 | Completed: 04/07/2022 | Effective: 03/29/2022

SOURCES SEARCHED

Source 1: RIVERSIDE COUNTY RECORDER'S OFFICE
Source 2: CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
Source 3: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

TARGET PROPERTY

Current Owner(s): NORTH COUNTY SAND AND GRAVEL, INC.
Street Address: 26227 SHERMAN ROAD
City, State Zip Code: MENIFEE, CA 92585
APN/Parcel/PIN: 331-110-038 County: RIVERSIDE
Legal Description: 4.77 ACRES M/L IN LOT 60 MB 011/038 TRUMBLE FARMS

PROPERTY OWNERSHIP

Instrument 1. **GRANT DEED**

Date Recorded: 01/30/2006 Instrument: 2006-0070643
Dated: 11/22/2005
Grantor(s): NORTH COUNTY SAND AND GAVEL, INC.
Grantee(s): NORTH COUNTY SAND AND GRAVEL, INC.

Instrument 2. **GRANT DEED**

Date Recorded: 07/30/2004 Instrument: 2004-0592973
Dated: 07/27/2004
Grantor(s): TRUMBLE FARMS ASSOCIATES, L.P., A CALIFORNIA LIMITED PARTNERSHIP, AS TO AN UNDIVIDED 64.15% INTEREST, EVELYN E. MOTTE, SURVIVING TRUSTEE OF THE JOHN V. MOTTE AND EVELYN E. MOTTE 1976 FAMILY TRUST, AS TO AN UNDIVIDED 9.7785% INTEREST, JOHN D. MOTTE, LEON E. MOTTE, AND YVONNE M. JOHNSON, EACH AS TO AN UNDIVIDED ONE-THIRD INTEREST AS TENANTS IN COMMON OF AN UNDIVIDED 26.0715% INTEREST
Grantee(s): NORTH COUNTY SAND AND GRAVEL, INC.

ENVIRONMENTAL LIENS

NO ENVIRONMENTAL LIENS FOUND FOR SUBJECT PROPERTY.

ACTIVITY AND USE LIMITATIONS (AUL)

NO AUL FOUND FOR SUBJECT PROPERTY.

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LEASES

NO LEASES FOUND FOR SUBJECT PROPERTY.

MISCELLANEOUS INSTRUMENTS

NO MISCELLANEOUS INSTRUMENTS FOUND FOR SUBJECT PROPERTY.

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Order Number:
22-366047.1

AFX Reference Number:
79-247447-47

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ENVIRONMENTAL LIEN AND AUL REPORT

Order Number:
22-366047.1

AFX Reference Number:
79-247446-47

Subject Property:
26227 SHERMAN ROAD
MENIFEE, CA 92585

Effective:
03/29/2022

Completed:
04/07/2022

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Order #: 22-366047.1 | Reference #: 79-247446-47 | Completed: 04/07/2022 | Effective: 03/29/2022

SOURCES SEARCHED

Source 1: RIVERSIDE COUNTY RECORDER'S OFFICE
Source 2: CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
Source 3: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

TARGET PROPERTY

Current Owner(s): NORTH COUNTY SAND AND GRAVEL, INC.
Street Address: 26227 SHERMAN ROAD
City, State Zip Code: MENIFEE, CA 92585
APN/Parcel/PIN: 331-110-039 County: RIVERSIDE
Legal Description: 6.07 ACRES M/L IN POR LOT 62 AND LOT 61 MB 011/038 TRUMBLE FARMS

PROPERTY OWNERSHIP

Instrument: **GRANT DEED**

Date Recorded: 07/30/2004 Instrument: 2004-0592973
Dated: 01/27/2004
Grantor(s): TRUMBLE FARMS ASSOCIATES, L.P., A CALIFORNIA LIMITED PARTNERSHIP, AS TO AN UNDIVIDED 64.15% INTEREST, EVELYN E. MOTTE, SURVIVING TRUSTEE OF THE JOHN V. MOTTE AND EVELYN E. MOTTE 1976 FAMILY TRUST, AS TO AN UNDIVIDED 9.7785% INTEREST, , JOHN D. MOTTE, LEON E. MOTTE, AND YVONNE M. JOHNSON, EACH AS TO AN UNDIVIDED ONE-THIRD INTEREST AS TENANTS IN COMMON OF AN UNDIVIDED 26.0715% INTEREST
Grantee(s): NORTH COUNTY SAND AND GRAVEL, INC.

ENVIRONMENTAL LIENS

NO ENVIRONMENTAL LIENS FOUND FOR SUBJECT PROPERTY.

ACTIVITY AND USE LIMITATIONS (AUL)

NO AUL FOUND FOR SUBJECT PROPERTY.

LEASES

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MISCELLANEOUS INSTRUMENTS

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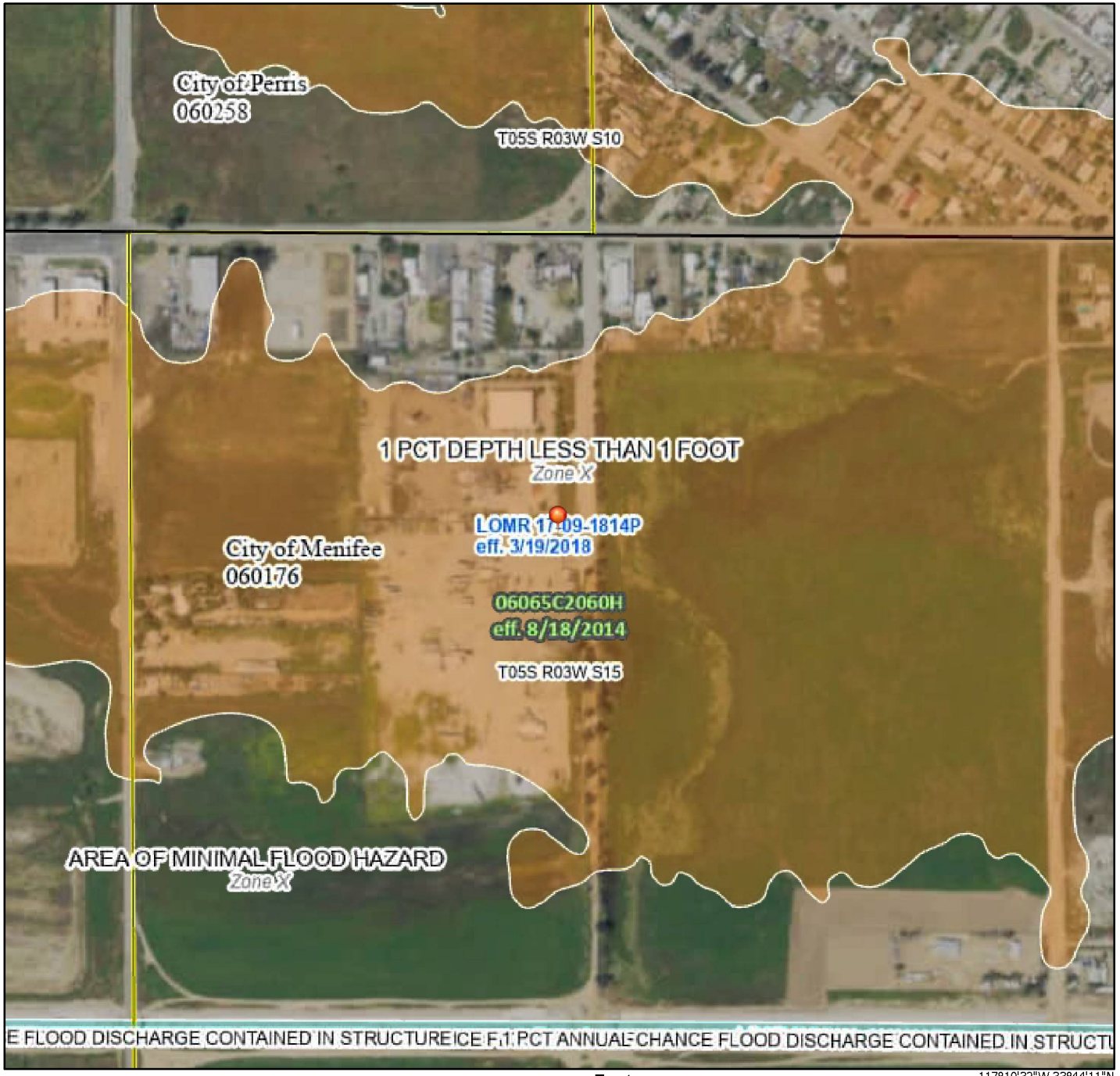
National Flood Hazard Layer FIRMette

FEMA



Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) — *Zone A, V, A99*
- With BFE or Depth — *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage — *Zone X*
- Future Conditions 1% Annual — *Zone X*
- Area with Reduced Flood Risk due to — *Zone X*
- *Zone D*

OTHER AREAS
- NO SCREEN — *Zone X*
- Effective LOMRs
- *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 — Cross Sections with 1% Annual Chance
- 17.5 — Water Surface Elevation
- Coastal Transect
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/25/2022 at 11:30 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

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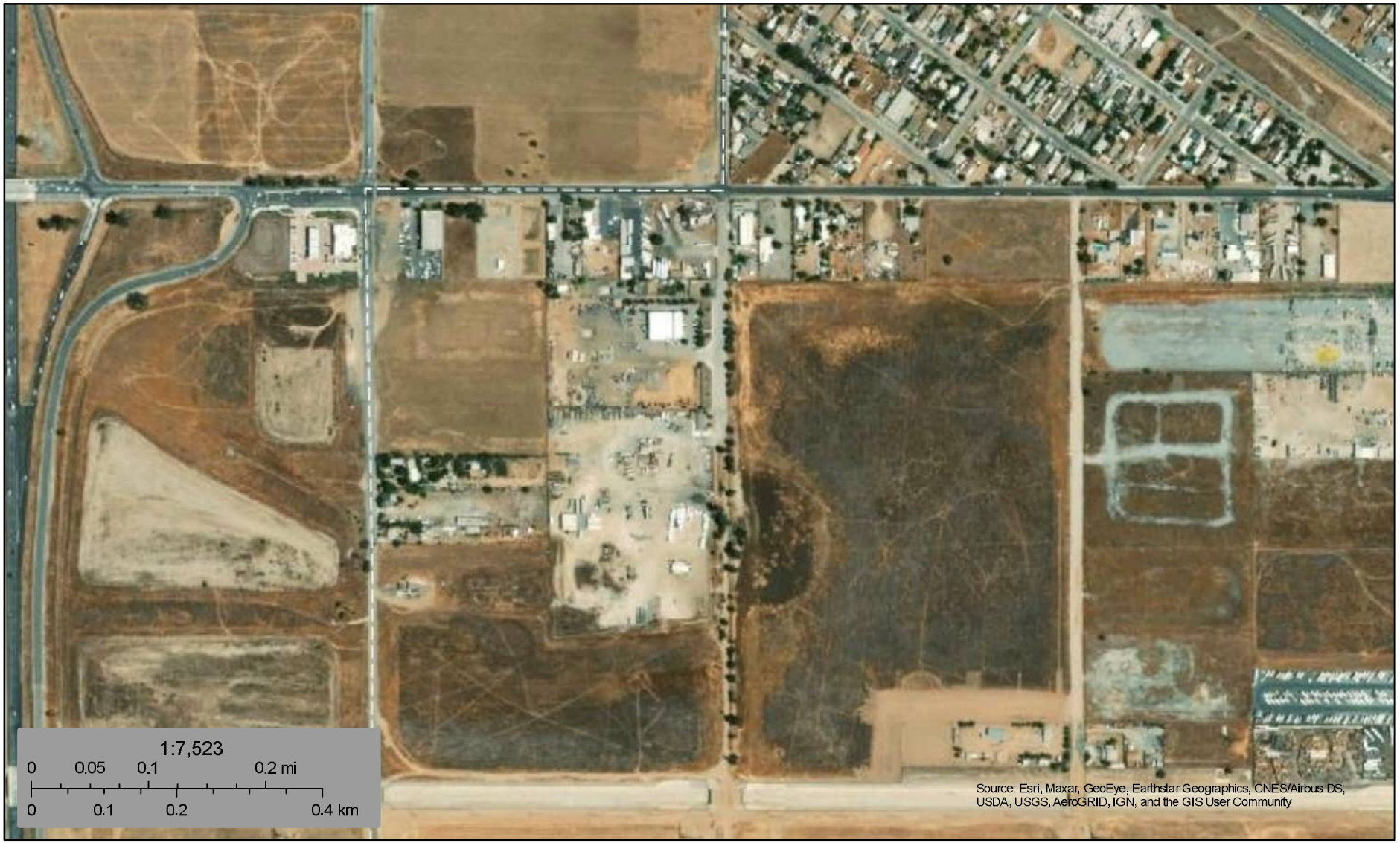
U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetlands

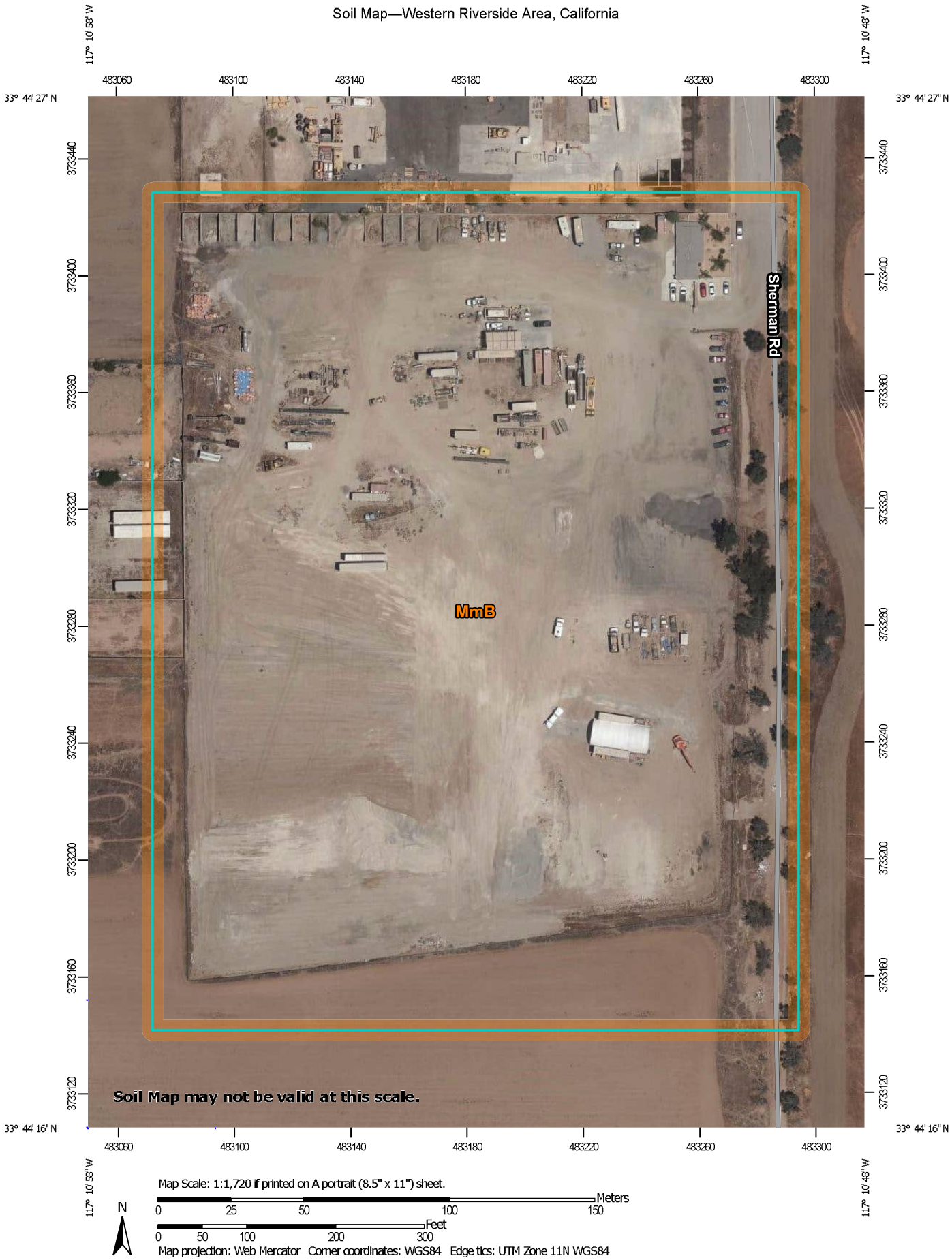


April 27, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



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MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 14, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 25, 2019—Jun 25, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MmB	Monserate sandy loam, 0 to 5 percent slopes	15.8	100.0%
Totals for Area of Interest		**15.8**	**100.0%**

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Western Riverside Area, California

MmB—Monserate sandy loam, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: hcx4
Elevation: 700 to 2,500 feet
Mean annual precipitation: 10 to 18 inches
Mean annual air temperature: 63 to 64 degrees F
Frost-free period: 220 to 280 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Monserate and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Monserate

Setting

Landform: Alluvial fans
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

H1 - 0 to 10 inches: sandy loam
H2 - 10 to 28 inches: sandy clay loam
H3 - 28 to 45 inches: indurated
H4 - 45 to 57 inches: cemented
H5 - 57 to 70 inches: loamy coarse sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: 20 to 39 inches to duripan
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R019XD029CA - LOAMY
Hydric soil rating: No

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Minor Components

Greenfield
Percent of map unit: 5 percent
Hydric soil rating: No

Tujunga
Percent of map unit: 5 percent
Hydric soil rating: No

Hanford
Percent of map unit: 5 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 14, Sep 13, 2021

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emwd

Your 2020 Water Quality

CONSUMER CONFIDENCE REPORT

www.emwd.org

Eastern Municipal Water District

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OUR MISSION

To deliver value to our diverse customers and the communities we serve by providing safe, reliable, economical and environmentally sustainable water, wastewater and recycled water services.

OUR VISION

To provide an exceptional level of customer and community service, exceeding the performance of any other public or private entity.

EMWD wants you, our valued customer, to be confident that your drinking water is safe.

OUR CONTINUING COMMITMENT TO YOU

EMWD and its trained, certified water quality professionals are committed to...

- Providing high quality, safe drinking water at the lowest price possible.
- Monitoring and testing the water we serve to optimize quality and ensure it is always safe to drink.
- Finding and developing new water supply sources to ensure continued reliability for our customers.
- Providing educated staff to answer any questions from our customers.

Dear Valued EMWD Customer,

Now more than ever, the availability of safe, clean and reliable tap water is critical to the well-being of residents and businesses in our communities.

On behalf of Eastern Municipal Water District's (EMWD) Board of Directors and staff, I am pleased to present our annual water quality report. Once again, we provided you with consistently high-quality drinking water throughout 2020. This annual water quality report shows how EMWD continues to meet or exceed all drinking water quality standards established by the United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Water Board).

EMWD is committed to providing a safe, high quality and reliable water supply while protecting public health. We use state-of-the-art water treatment processes which remove and destroy viruses, such as COVID-19. By efficiently maintaining and operating our facilities along with conducting rigorous monitoring and testing, EMWD achieves high quality tap water service. Water samples are collected throughout the year from EMWD's 31 drinking water sources to carefully test for 155 contaminants and impurities. In 2020, EMWD's laboratory personnel collected 7,678 water samples and performed 45,347 tests to monitor and ensure quality.

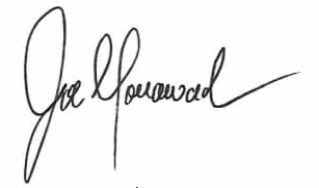
EMWD supports science-based standards that provide health benefits to the public in an economically balanced manner. While groundwater or surface waters can have trace contaminants, EMWD protects your health and safety by treating the water we deliver — ensuring your water meets or surpasses all regulated drinking water standards.

The State Water Board requires that EMWD customers receive an annual copy of this report, which summarizes the results of water quality tests and provides specific details about sources and quality of the water served in your community. The guidelines for distributing this report allow for electronic delivery of the report instead of a paper copy in the mail. By delivering these reports electronically, we reduce costs and eliminate paper waste associated with printing and mailing the full report to our more than 156,000 accounts.

Please note that you may change your delivery preference at any time. We will be happy to provide you with a paper copy of this report upon request through our web site at www.emwd.org/CCR or by calling us at 951-928-3777, extension 3430.

We strongly encourage you to read this report and if you have any water quality questions, please feel free to contact Michelle Karras, Senior Environmental Analyst, or any of our Water Quality staff at 951-928-3777, extension 3327. We also encourage you to get the latest news and information from EMWD through our website at www.emwd.org.

Thank you for being part of the EMWD family – we are proud to serve you.



Joe Mouawad, P.E.
GENERAL MANAGER
EASTERN MUNICIPAL WATER DISTRICT

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This annual water quality report contains important and useful information about the source and the tests used to ensure the quality and safety of your drinking water. It also describes how EMWD meets all drinking water standards as set by the United States Environmental Protection Agency (USEPA) and enforced by the State Water Resources Control Board (State Water Board).

About Regulations

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The United States Food and Drug Administration regulations and California law also establish

CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:

- MICROBIAL CONTAMINANTS, such as viruses and bacteria, may come from sewage treatment plants, septic systems,
- INORGANIC CONTAMINANTS, such as salts and metals, can be naturally-occurring or result from urban storm water
- ORGANIC CHEMICAL CONTAMINANTS, including synthetic and volatile organic chemicals may be by-products of industrial processes or petroleum production, and can also come from gas stations, urban storm water runoff, agricultural
- PESTICIDES AND HERBICIDES may come from a variety of sources such as agriculture, urban storm water runoff, and
- RADIOACTIVE CONTAMINANTS can be naturally-occurring or be the result of oil and gas production and mining activities.

SENSITIVE POPULATIONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised individuals such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about their drinking water from their health care providers. USEPA and Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at **(800) 426-4791.**

ABOUT NITRATE

Nitrate in drinking water at levels above 10 parts per million (ppm) is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of an infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 ppm may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should seek advice from your health care provider.

ABOUT ARSENIC

While your drinking water meets the federal and state standard for arsenic, some of our sources do contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The USEPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

ABOUT LEAD AND COPPER

Lead and copper are rarely found in source waters; however, both of these metals can enter drinking water by leaching from household plumbing and fixtures. Water that sits in your pipes for long periods of time may dissolve tiny amounts of lead and/or copper (parts per billion levels) into household water. The USEPA has developed the Lead and Copper Rule to protect public health by establishing an action level of 15 parts per billion (ppb) for lead and 1300 ppb for copper.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. EMWD is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. If your water has been sitting in your household plumbing for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. *If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.* If you are concerned about lead in your water, you may wish to have your water tested by a qualified contractor. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or at www.epa.gov/lead.

UNREGULATED CONTAMINANTS

Unregulated contaminant monitoring helps USEPA and the State Water Board determine where certain contaminants occur and whether the contaminants need to be regulated.

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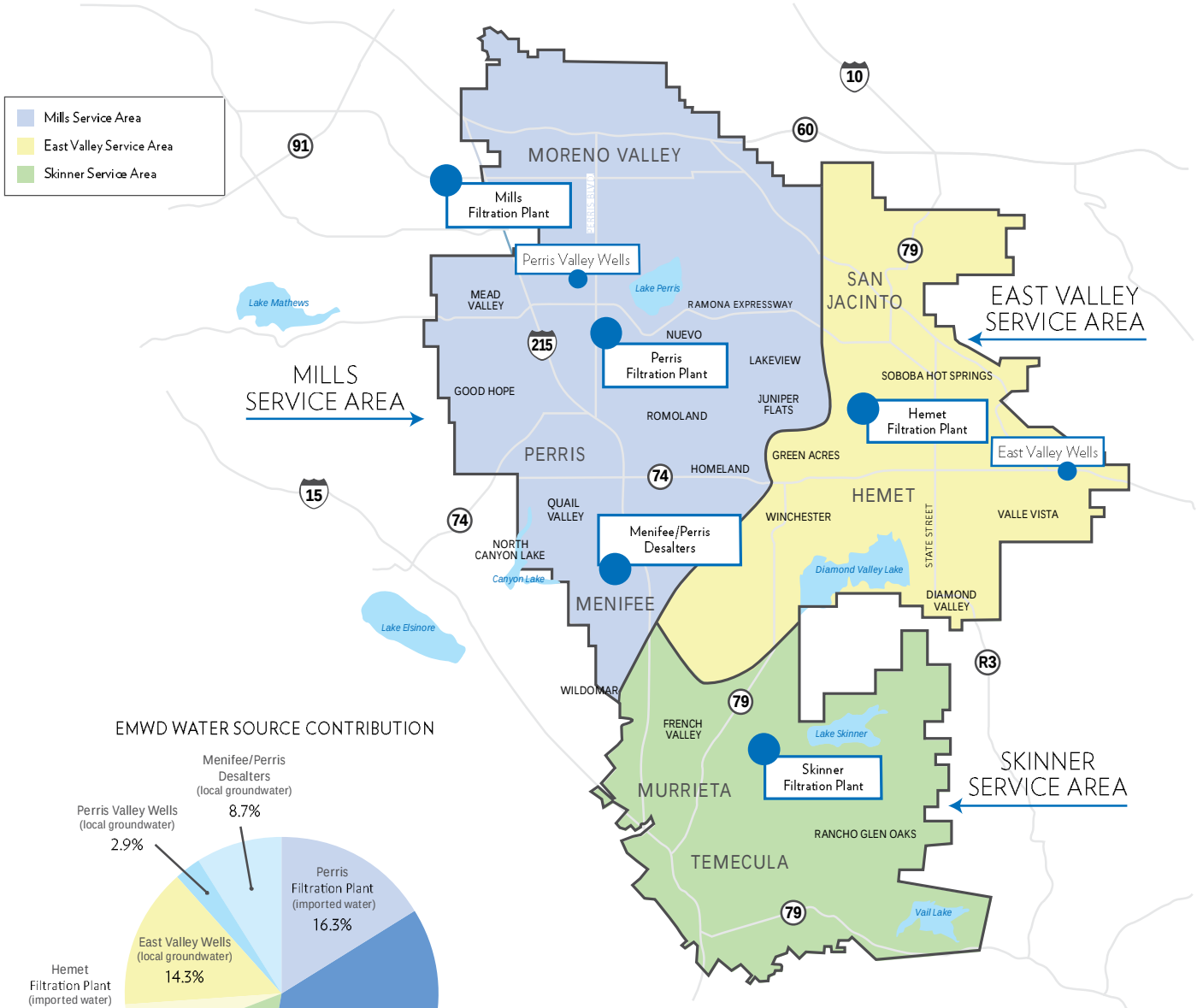
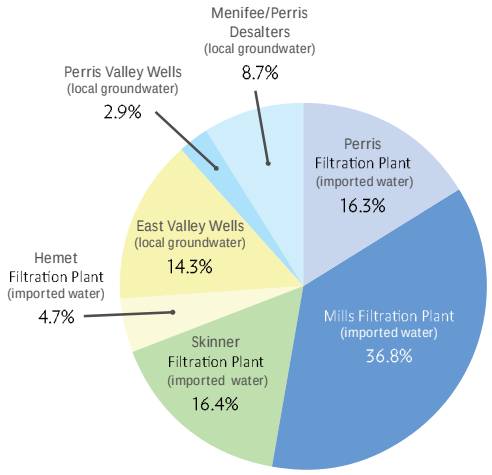
THE SOURCES OF YOUR TAP WATER...

To help you find specific details about your tap water, we have organized this report according to the communities we serve.



EMWD WATER SOURCE CONTRIBUTION



Total Annual Water Usage: 27.4 billion gallons

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THE COMMUNITIES WE SERVE...

COMMUNITIES SERVED

Good Hope
Homeland
Juniper Flats
Lakeview
Mead Valley
Menifee**
Moreno Valley
North Canyon Lake
Nuevo
Perris
Quail Valley
Romoland
Wildomar

MILLS SERVICE AREA | Water for this service area comes from a combination of sources:

- The Henry J. Mills Filtration Plant* treats imported surface water supplied solely from northern California through the State Water Project (SWP). The Mills Filtration Plant adjusts the fluoride levels in the water to an optimal level recommended by the Centers for Disease Control and Prevention (CDC) for oral health, and uses chloramine for final disinfection.

WATER FROM THE MILLS FILTRATION PLANT IS BLENDED WITH SEVERAL OTHER EMWD WATER SOURCES:

- One Perris Valley Well serves a limited area of Perris – along Perris Boulevard south of the Ramona Expressway.
- The Perris Water Filtration Plant (PWFP) treats both Colorado River and SWP waters. This plant uses the latest ultrafiltration technology to remove particulate contaminants to produce quality, potable water. The PWFP serves Lakeview, Nuevo, Romoland, Homeland, and Juniper Flats. This plant uses chloramine for final disinfection.
- The Menifee and Perris Desalters convert salty groundwater into potable water using a reverse osmosis process. Menifee, North Canyon Lake, and Quail Valley are the only communities within the Mills Service Area to receive blended water from this desalination plant. The Menifee and Perris Desalters use chloramine for final

WEST COMMUNITIES SERVED

Diamond Valley
Green Acres
Hemet
San Jacinto
Winchester***

EAST COMMUNITIES SERVED

Hemet
San Jacinto
Soboba Hot Springs
Valle Vista

EAST VALLEY SERVICE AREA | This service area is split into two regions:

WEST OF STATE STREET:

- The Hemet Water Filtration Plant (HWFP) treats both Colorado River and SWP waters. This plant uses the latest ultrafiltration technology to remove particulate contaminants and produce quality, drinking water. This treatment plant uses chloramine for final disinfection. Local groundwater also supplies this area.

EAST OF STATE STREET:

- A system of deep groundwater wells serves these communities. These wells are

COMMUNITIES SERVED

French Valley
Menifee**
Murrieta
Rancho Glen Oaks****
Temecula
Winchester***

SKINNER SERVICE AREA | Water for this service area comes from:

- The Robert A. Skinner Filtration Plant* treats water from the Colorado River and from the SWP. The Skinner Plant adjusts the fluoride levels in the water to an optimal level recommended by the CDC for oral health, and uses chloramine for final disinfection.

** The Mills and Skinner Filtration Plants are owned and operated by The Metropolitan Water District of Southern California. ** Typically served by the Mills Filtration Plant and occasionally served by the Skinner Filtration Plant. *** Typically served by the Hemet Water Filtration Plant and occasionally served by the Skinner Filtration Plant. **** This area is served water produced by Rancho California Water District. (RCWD). You may view RCWD's Consumer Confidence Report on their website at www.ranchowater.com.*

PROTECTING YOUR DRINKING WATER

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791 or online at www.epa.gov/ground-water-and-drinking-water.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. The land that the water comes into contact with is called the watershed; everything that happens to or in the watershed can affect the quality of your drinking water supply.

EMWD uses several sources of water to serve its customers, including surface water from the Colorado River and the State Water Project (SWP), as well as local groundwater.

An initial assessment of all the watersheds, both surface water and groundwater, was completed in 2002. The Colorado River, a surface water source, was reassessed in 2010 and found to be most vulnerable to recreational activities, urban and storm water runoff, increasing urbanization in the watershed, and wastewater.

Water from the SWP, also a surface water source, was reassessed in 2011 and found to be most vulnerable to urban and storm water runoff, wildlife, agriculture, recreational activities, and wastewater.

An assessment of all EMWD wells was completed in 2013. Two sources were considered vulnerable to airports and airplane maintenance associated with a contaminant detected in the water supply. In addition, other EMWD wells were considered most vulnerable to the following due to proximity (not associated with any contaminants): commercial and industrial activities, residential activities, agriculture, and other activities such as recreation and transportation.

You can view vulnerability assessments on line at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/DWSAP.shtml. You can also call 951-928-3777, ext. 3327 for a copy of EMWD's vulnerability assessments.

Protecting the sources of drinking water helps protect our health. It's everyone's responsibility, and here are a few ways you can help:

- **Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.**
- **Pick up after your pets.**
- **Dispose of chemicals properly; take used motor oil to a recycling center.**

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Facts about Total Coliform Bacteria

Water agencies test for the presence of coliform bacteria as an indicator of drinking water quality.

Coliform bacteria are naturally present in the environment and are generally not harmful. Coliform bacteria may occur in soil, vegetation, animal waste, sewage, and surface waters.

All water systems are required to comply with the state Total Coliform Rule. All water systems are also required to comply with the federal Revised Total Coliform Rule. The federal rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e. total coliform and E. coli *bacteria). The USEPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If*

Eastern Municipal Water District routinely tests for the presence of coliform bacteria as an indicator of the sanitary quality of drinking water. EMWD analyzed 3,132 coliform samples in 2020, 22 of which were total coliform positive. The maximum allowed by USEPA for coliforms is no more than 5 percent in any month. The highest monthly coliform result in 2020 was 4.1 percent, which complies with this standard. EMWD also tests for *E. coli* bacteria, which indicate fecal or sewage contamination. Zero samples tested positive for *E. coli* in 2020.

A positive coliform test result does not necessarily mean a maximum contaminant level (MCL) has been exceeded, or that there is a problem in the water system.

More information and general guidelines on ways to lessen the risk of infection

(800) 426-4791 or at **http://water.epa.gov/drink/info/**

ABBREVIATIONS

AL	Action Level
CFU/mL	Colony-Forming Units per milliliter
DLR	Detection Limits for purposes of Reporting: State-determined level that a test can detect the chemical
grains/ gallon	grains per gallon: a measure of water hardness. One grain/gallon equals 17.1 ppm or mg/L
HPC	Heterotrophic Plate Count: a bacteriological test that counts the number of bacteria per milliliter of sample
LRAA	Locational Running Annual Average
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MRDL	Maximum Residual Disinfectant Level
MRDLG	Maximum Residual Disinfectant Level Goal
MRL	Minimum Reporting Level: set by EPA for unregulated contaminant monitoring
NA	Not Applicable: no State or Federal standards are established
ND	Non-Detected: sample was taken and chemical was not detected
NL	Notification Level
NR	No Range: all result(s) were the same value
NTU	Nephelometric Turbidity Units
pCi/L	picocuries per liter
PHG	Public Health Goal
ppb	parts per billion or micrograms per liter (µg/L)
ppm	parts per million or milligrams per liter (mg/L)
ppt	parts per trillion or nanograms per liter (ng/L)
RAA	Running Annual Average
RL	Reporting Limit
TON	Threshold Odor Number
TT	Treatment Technique
µS/cm	microSiemens per centimeter; or micromhos per centimeter (µmho/cm)
—	Samples not required
=	Equal
>	Greater than
<	Less than
≤	Less than or equal to
#	Number
%	Percent

DEFINITIONS

90th Percentile: The value in a data set in which 90 percent of the set is less than or equal to this value.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Disinfection By-Product: Compounds which are formed from mixing of organic or mineral precursors in the water with ozone, chlorine or chloramine. Bromate, Total Trihalomethanes, and Haloacetic Acids are disinfection by-products.

Locational Running Annual Average (LRAA): The Running Annual Average (RAA) at one sample location.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the Public Health Goals (PHGs) or Maximum Contaminant Level Goals (MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Notification Level (NL): Notification levels are health-based advisory levels established by the State Water Board for chemicals in drinking water that lack MCLs.

Primary Drinking Water Standard (Primary Standard): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Running Annual Average (RAA): The yearly average which is calculated every 3 months using the previous 12 months' data.

Secondary Drinking Water Standard (Secondary Standard): MCLs for contaminants that do not affect health but are used to monitor the aesthetics of the water.

Treatment Technique (TT): A required treatment process intended to reduce the level of a contaminant in drinking water.

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EASTERN MUNICIPAL WATER DISTRICT DISTRIBUTION SYSTEM DATA FOR 2020

Parameter	Units	State or Federal Maximum Contaminant Level (MCL)	California Public Health Goal (PHG)	State Detection Limit for Reporting (DLR)	Range / Average	EMWD's Entire Distribution System	SERVICE AREA		
							Mills	East Valley	Skinner
PRIMARY STANDARDS - MANDATORY HEALTH-RELATED STANDARDS									
MICROBIOLOGICAL									
Total Coliform Bacteria	# positive coliforms	(A)	MCLG = 0	NA	# positives in 2020	22	9	1	12
					Highest monthly %	4.1	---	---	---
Fecal Coliform Bacteria *(E. coli)*	# positive *E. coli*	(B)	MCLG = 0	NA	# positives in 2020	0	0	0	0
Heterotrophic Plate Count (HPC)	# HPCs > 500 CFU/mL	(C)	NA	NA	# HPC>500 in 2020	11	5	3	3
					Lowest monthly %	98	---	---	---
DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS									
Bromate (Mills & Skinner plants only) (D)	ppb	RAA = 10	0.1	1.0	Range	---	ND - 12	---	ND - 5.6
					Highest RAA	---	4.3	---	2.5
Haloacetic Acids (5) (HAA5s) (E)	ppb	LRAA = 60	NA	(E)	Range	0 - 15	0 - 11	0 - 15	0 - 9.4
					Highest LRAA	17	16	17	9
Total Trihalomethanes (TTHMs) (F)	ppb	LRAA = 80	NA	1	Range	3 - 62	11 - 53	3 - 62	9.8 - 30
					Highest LRAA	59	43	59	33
Total Chlorine Residual Chlorine and Chloramines	ppm	MRDL = 4.0 as Cl_2	MRDLG = 4 as Cl_2	NA	Range	ND - 6	ND - 4	ND - 3.5	ND - 6
					Average	1.6	1.4	1.9	1.6
SECONDARY STANDARDS - AESTHETIC STANDARDS									
PHYSICAL PARAMETERS (G)									
Color	Units	15	NA	NA	Range	ND - 4	ND - 2	ND - 4	ND - 1
					Average	ND	ND	ND	ND
Odor Threshold	TON	3	NA	1	Range	ND - 1	ND - 1	ND - 1	ND - 1
					Average	ND	ND	ND	ND
pH	pH unit	6.5 - 8.5	NA	NA	Range	6.8 - 8.8	6.8 - 8.1	7.5 - 8.6	7.2 - 8.4
					Average	8.0	8.1	8.0	7.9
Turbidity	NTU	5	NA	0.1	Range	ND - 0.9	ND - 0.8	ND - 0.6	ND - 0.7
					Average	0.1	0.1	0.1	0.2
UNREGULATED CONTAMINANT MONITORING (H)									
Haloacetic Acids (HAA5) (I)	ppb	NA	NA	NA	Range	ND - 17	ND - 17	1.2 - 11	3.6 - 7.7
					Average	5.4	4.9	5.4	5.8
Haloacetic Acids (HAA6Br) (I)	ppb	NA	NA	NA	Range	ND - 32	ND - 32	2.4 - 23	5.6 - 8.5
					Average	8.5	8.2	10	7.5
Haloacetic Acids (HAA9) (I)	ppb	NA	NA	NA	Range	ND - 41	ND - 41	1.7 - 25	7.8 - 15
					Average	11	11	13	11

The State allows EMWD to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Data presented is from sampling completed in 2020, unless otherwise indicated. Some of EMWD's data, though representative, are more than one year old.

EMWD supports science-based standards that provide health benefits to the public in an economically balanced manner. Should more stringent standards be set, EMWD will meet them. EMWD's water has met and will continue to meet all regulations.

On November 23, 2020, source monitoring required by the Federal Groundwater Rule was not completed. All groundwater sources were sampled, but not for each total coliform positive. The State Water Resources Control Board, Division of Drinking water found there was no risk to public health.

FOOTNOTES

(A) Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform-positive. Compliance is based on distribution system samples. EMWD analyzed 3,132 coliform samples in 2020, 22 of which were total coliform positive. The highest monthly coliform result was 4.1%. The MCL was not violated in 2020.

(B) Fecal coliform/*E. coli* MCLs: An MCL violation is the occurrence of two (2) consecutive total coliform-positive samples, one **of which contains fecal coliform or** *E. coli*. There were zero detected fecal coliforms. The MCL was not violated in 2020.

(C) HPCs were tested only in distribution system samples which had no detectable chlorine residual. No less than 95% of all distribution system samples in one month may have no detectable chlorine residual and an HPC greater than 500 colony forming units per mL. The HPC results were no less than

(D) Bromate is a disinfection by-product resulting from the use of ozone. Currently, the Mills and Skinner Filtration plants use ozone.

(E) DLR = 1.0 ppb for each Haloacetic Acid 5 (HAA5) analyte (dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid) except for monochloroacetic acid which has a DLR = 2.0 ppb. Locational running annual averages and ranges are calculated from 12 samples sites collected quarterly throughout the distribution system. HAA5s are a by-product of drinking water chlorination.

(F) Total Trihalomethanes (TTHMs) are the sum of the following **analytes: bromodichloromethane, bromoform, chloroform,** and dibromochloromethane. Locational Running Annual Averages (LRAA) and ranges are calculated from 12 sample sites collected quarterly throughout the distribution system. TTHMs are a by-product of drinking water chlorination.

(G) **Compliance for physical parameters is determined by the** average, however all samples are reviewed and any values outside the compliance range are noted and corrected if possible. Values above the MCL may be acceptable so long as the average complies with the MCL.

(H) Unregulated contaminant monitoring spanned throughout 2019; the last sampling event occurred in first quarter of 2020 for the East Valley wells.

(I) Haloacetic Acids: HAA9 - sum of dichloroacetic acid (DCAA), monochloroacetic acid (MCAA), trichloroacetic acid (TCAA), monobromoacetic acid (MBAA), dibromoacetic acid (DBAA), bromochloroacetic acid (BCAA), bromodichloroacetic acid (BDCAA), chlorodibromoacetic acid (CDBAA), and tribromoacetic acid (TBAA). HAA6Br - sum of MBAA, DBAA, BCAA, BDCAA, CDBAA, TBAA. HAA5- sum of DCAA, MCAA, TCAA, MBAA, DBAA.

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WE ARE REQUIRED TO MONITOR YOUR DRINKING WATER FOR SPECIFIC CONTAMINANTS ON A REGULAR BASIS.

Parameter	Units	State or Federal Maximum Contaminant Level (MCL)	California Public Health Goal (PHG)	State Detection Limit for Reporting (DLR)	MENIFEE, MORENO VALLEY, NORTH CANYON LAKE, PERRIS					
					Mills Filtration Plant		Perris Valley Wells (J)		Perris Filtration Plant	
Percent of total water delivered by EMWD	%	---	---	---	36.8%		2.9%		16.3%	
					Range	Average	Range	Average	Range	Average
PRIMARY DRINKING WATER STANDARDS – MANDATORY HEALTH-RELATED STANDARDS										
CLARITY					Highest NTU	% ≤ 0.3			Highest NTU	% ≤ 0.1
Combined Filter Effluent Turbidity	NTU and %	(K)	NA	NA	0.09	100	---	---	0.25	100
INORGANIC CHEMICALS										
Aluminum	ppb	1000 (L) 200	600	50	ND - 93	ND	NR	ND	NR	ND
Arsenic (M)	ppb	10	0.004	2	NR	ND	NR	3.6	NR	2.8
Barium	ppb	1	2	100	NR	ND	NR	150	NR	ND
Fluoride (N)	ppm	2.0	1	0.1	0.1 - 0.9	0.8	NR	0.2	ND - 0.32	ND
Nitrate (as N)	ppm	10	10	0.4	NR	0.6	3.2 - 5.1	3.6	ND - 1.2	0.49
Selenium	ppb	50	30	5	NR	ND	NR	8.3	NR	ND
RADIOLOGICALS										
Gross Alpha Particle Activity	pCi/L	15	MCLG = 0	3	ND - 4	ND	NR	9.1	NR	3.8
Gross Beta Particle Activity	pCi/L	50	MCLG = 0	4	ND - 4	ND	NR	5.1	NR	ND
Uranium	pCi/L	20	0.43	1	ND - 2	ND	NR	9.2	NR	1.9
SECONDARY DRINKING WATER STANDARDS – AESTHETIC STANDARDS										
Chloride	ppm	500	NA	NA	60 - 62	61	NR	220	55 -110	82
Specific Conductance	µS/cm	1600	NA	NA	439 - 455	447	960 - 1300	1100	360 - 940	560
Sulfate	ppm	500	NA	0.5	41 - 43	42	NR	51	35 - 200	62
Total Dissolved Solids (TDS)	ppm	1000	NA	NA	240 - 255	248	450 - 790	690	200 - 620	340
Turbidity (O)	NTU	5	NA	0.1	NR	ND	NR	0.1	ND - 0.3	ND

FOOTNOTES

(J) Values are from blended Well 57 and raw well values from other wells in area. Well 57 is blended on site with Mills water to improve Total Dissolved Solids.

(K) The turbidity level of the combined filter effluent at the Mills and Skinner Filtration plants shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1 NTU at any time. For the Perris and Hemet Filtration plants, the turbidity level of the combined filter effluent shall be less than or equal to 0.1 NTU in 95% of the measurements taken each month and shall not exceed 1 NTU at any time. Turbidity is a measure of the cloudiness of the water, is regulated as a treatment technique (TT) and is an indicator of treatment performance. Turbidity value at the Hemet Filtration Plant was due to air interference; the MCL was not violated.

(L) Aluminum has both primary (1,000 ppb) and secondary (200 ppb) standards (MCLs).

(M) While your drinking water meets the federal and state standard for arsenic, some of our sources do contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

(N) Metropolitan began fluoride treatment of water at Mills and Skinner Filtration plants in 2007.

(O) Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. **Secondary standards were based either on** the treatment plant effluent or raw well water.

The State allows EMWD to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Data presented is from sampling completed in 2020, unless otherwise indicated. Some of EMWD's data, though representative, are more than one year old.

EMWD supports science-based standards that provide health benefits to the public in an economically balanced manner. Should more stringent standards be set, EMWD will meet them. EMWD's water has met and will continue to meet all regulations.

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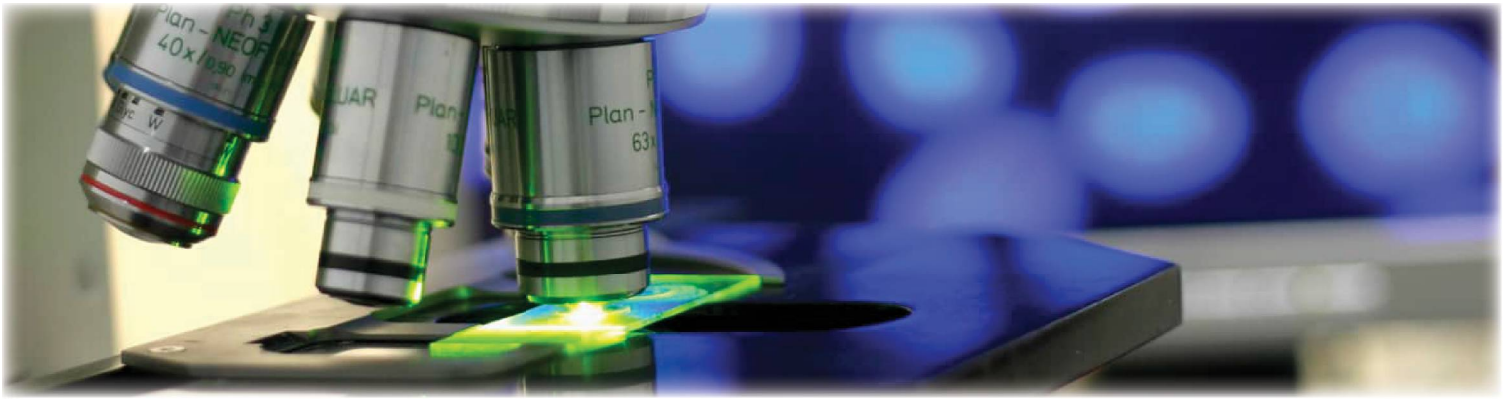
EASTERN MUNICIPAL WATER DISTRICT 2020 WATER QUALITY TABLE

RESULTS ARE AN INDICATOR OF WHETHER OR NOT YOUR DRINKING WATER MEETS HEALTH STANDARDS.

& WILDOMAR		MURRIETA		HEMET & SAN JACINTO				
Menifee and Perris Desalters		Skinner Filtration Plant		East Valley Wells		Hemet Filtration Plant		Major Sources in Drinking Water
8.7%		16.4%		14.3%		4.7%		---
Range	Average	Range	Average	Range	Average	Range	Average	
		Highest NTU	% ≤ 0.3			Highest NTU	% ≤ 0.1	
---	---	0.09	100	---	---	1.3	99.9	Soil runoff
NR	ND	ND - 200	108	NR	ND	NR	ND	Residue from water treatment process; natural deposits erosion
NR	2.5	NR	ND	ND - 3.0	ND	NR	3.0	Natural deposits erosion; runoff from orchards; glass and electronics production wastes
NR	ND	NR	ND	ND - 140	ND	NR	ND	Discharges of oil drilling wastes and from metal refineries; natural deposits erosion
NR	ND	0.6 - 0.9	0.7	0.12 - 0.35	0.22	ND - 0.27	ND	Erosion of natural deposits; discharge from fertilizer and aluminum factories; water additive to promote strong teeth
1.6 - 2.5	2.0	NR	ND	ND - 3.4	1.0	ND - 0.7	ND	Runoff/leaching from fertilizer use; septic tank and sewage; natural deposits erosion
NR	6.7	NR	ND	ND - 12	ND	NR	ND	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
NR	ND	ND - 3	ND	ND - 7.1	ND	NR	ND	Erosion of natural deposits
NR	ND	ND - 5	ND	ND - 5.1	ND	NR	ND	Decay of natural and man-made deposits
NR	ND	ND - 2	2	1.1 - 5.8	2.4	NR	1.3	Erosion of natural deposits
120 - 140	130	81 - 92	86	10 - 97	30	58 - 88	67	Runoff/leaching from natural deposits; seawater influence
420 - 620	550	796 - 956	876	310 - 970	470	350 - 570	460	Substances that form ions in water; seawater influence
13 - 22	18	152 - 208	180	8.8 - 220	55	29 - 48	39	Runoff/leaching from natural deposits; industrial wastes
230 - 470	360	472 - 588	530	200 - 660	310	190 - 330	260	Runoff/leaching from natural deposits; seawater influence
NR	ND	NR	ND	0.1 - 0.3	0.1	ND - 1.2	0.2	



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EASTERN MUNICIPAL WATER DISTRICT 2020 WATER QUALITY TABLE

WE ARE REQUIRED TO MONITOR YOUR DRINKING WATER FOR SPECIFIC CONTAMINANTS ON A REGULAR BASIS.

Parameter	Units	State or Federal Maximum Contaminant Level (MCL)	California Public Health Goal (PHG)	State Detection Limit for Reporting (DLR)	MENIFEE, MORENO VALLEY, NORTH CANYON LAKE, PERRIS					
					Mills Filtration Plant		Perris Valley Wells (J)		Perris Filtration Plant	
					Range	Average	Range	Average	Range	Average
UNREGULATED CONTAMINANT MONITORING (H)										
Germanium	ppb	NA	NA	0.3	No Range	ND	0.34 - 0.37	0.36	No Range	ND
Manganese	ppb	MCL = 50 NL = 500	NA	0.4	2.0 - 12	5.5	0.48 - 2.9	1.7	ND - 15	4.3
OTHER PARAMETERS										
Alkalinity (Total)	ppm	NA	NA	NA	75 - 76	76	115 - 120	120	68 - 120	87
Boron	ppb	NL = 1000	NA	100	No Range	140	No Range	330	130 - 240	150
Calcium	ppm	NA	NA	NA	21 - 22	22	87 - 89	88	18 - 72	33
Hardness as Calcium Carbonate (Q)	grains/gallon	NA	NA	NA	4.9 - 5.5	5.2	No Range	18	3.4 - 16	7.6
Magnesium	ppm	NA	NA	NA	9.7 - 10	9.8	No Range	22	8.1 - 25	13
Potassium	ppm	NA	NA	NA	No Range	2.5	No Range	2.9	2.3 - 4.7	3.1
Sodium	ppm	NA	NA	NA	51 - 55	53	No Range	88		64
Parameter	Units	Consumer Confidence Report Detection Levels			Mills Filtration Plant		Perris Valley Wells		Perris Filtration Plant	
PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFAS)										
Perfluorohexane sulfonic acid	ppt	4			No Range	ND	No Range	6.7	No Range	ND

FOOTNOTES

(H) Unregulated contaminant monitoring spanned throughout 2019; the last sampling event occurred in first quarter of 2020.

(J) Values are from blended Well 57 and raw well values from other wells in area. Well 57 is blended on site with Mills water to improve Total Dissolved Solids.

(Q) Water hardness, measured in grains per gallon as calcium carbonate, is characterized by the following scale: 0 – 4.4 is soft, 4.4 – 8.8 is moderately hard, 8.8 – 17.5 is hard and greater than 17.5 is very hard.

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RESULTS ARE AN INDICATOR OF WHETHER OR NOT YOUR DRINKING WATER MEETS HEALTH STANDARDS.

& WILDOMAR		MURRIETA		HEMET & SAN JACINTO				
Menifee and Perris Desalters		Skinner Filtration Plant		East Valley Wells		Hemet Filtration Plant		Major Sources in Drinking Water
Range	Average	Range	Average	Range	Average	Range	Average	
NR	ND	No Range	ND	No Range	ND	NR	ND	Naturally-occurring element
NR	ND	1.5 - 6.9	3.8	ND - 81	12	NR	ND	Leaching from natural deposits
24 - 51	37	105 - 121	113	100 - 150	120	66 - 88	75	Naturally-occurring carbonates; measures water's ability to neutralize acid
150 - 470	250	No Range	130	ND - 250	ND	120 - 180	150	Runoff/leaching from natural deposits; industrial wastes
25 - 68	37	52 - 72	62	35 - 89	52	18 - 26	23	Naturally-occurring mineral
4.7 - 13	7.0	12.3 - 15.9	14.1	5.7 - 17	9.3	3.3 - 6.4	5.6	Naturally-occurring; the sum of calcium and magnesium in the water
5.0 - 13	7.9	20 - 26	23	2.4 - 16	5.8	7.4 - 12	9.6	Naturally-occurring mineral
ND - 3.6	1.4	4.0 - 4.8	4.4	2.4 - 7.0	4.1	2.1 - 3.6	2.7	Naturally-occurring mineral
47 - 110	57	76 - 98	87	26 - 91	38	41 - 69	53	Naturally-occurring mineral
Menifee and Perris Desalters		Skinner Filtration Plant		East Valley Wells		Hemet Filtration Plant		Major Sources in Drinking Water
No Range	ND	No Range	ND	No Range	ND	No Range	ND	Industrial chemical factory discharges; runoff or leaching from landfills; used in fire-retardant foams and various industrial processes

ONE PART PER MILLION (PPM) (mg/L) IS LIKE

- 1 second in 11.5 days
- 1 teaspoon in 1,302 gallons
- 1 drop in 13.6 gallons

The State allows EMWD to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Data presented is from sampling completed in 2020, unless otherwise indicated. Some of EMWD's data, though representative, are more than one year old.

ONE PART PER BILLION (PPB) (ug/L) IS LIKE

- 1 second in nearly 32 years
- 1 teaspoon in 1.3 million gallons

EMWD supports science-based standards that provide health benefits to the public in an economically balanced manner. Should more stringent standards be set, EMWD will meet them. EMWD's water has met and will continue to meet all regulations.

ONE PART PER TRILLION (PPT) (ng/L) IS LIKE

- 1 second in nearly 32,000 years
- 1 teaspoon in 1.3 billion gallons

Unregulated contaminant monitoring helps EPA and the State Water Board determine where certain contaminants occur and whether the contaminants need to be regulated.

Represents 2019 Data Values

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EASTERN MUNICIPAL WATER DISTRICT

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Your 2020 Water Quality

CONSUMER CONFIDENCE REPORT

Issued July 2021

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If you wish to attend a meeting, please call the Board Secretary during normal business hours at **951-928-3777, extension 4235** to confirm meeting dates or check the Board Meeting Calendar online at **www.emwd.org/BoardMeetings.**

For more information on this report, contact: Water Quality **(951) 928-3777, extension 3327** or visit **www.emwd.org/WaterQuality.**

Why You Should Read This Report

THIS YEAR'S DRINKING WATER QUALITY REPORT…

- Examines how EMWD ensures your drinking water is safe, high quality, and reliable.
- Provides science-based data and facts about the sources, quality, and safety of your drinking water.
- Explains how customers can always choose how they wish to receive future water quality reports.

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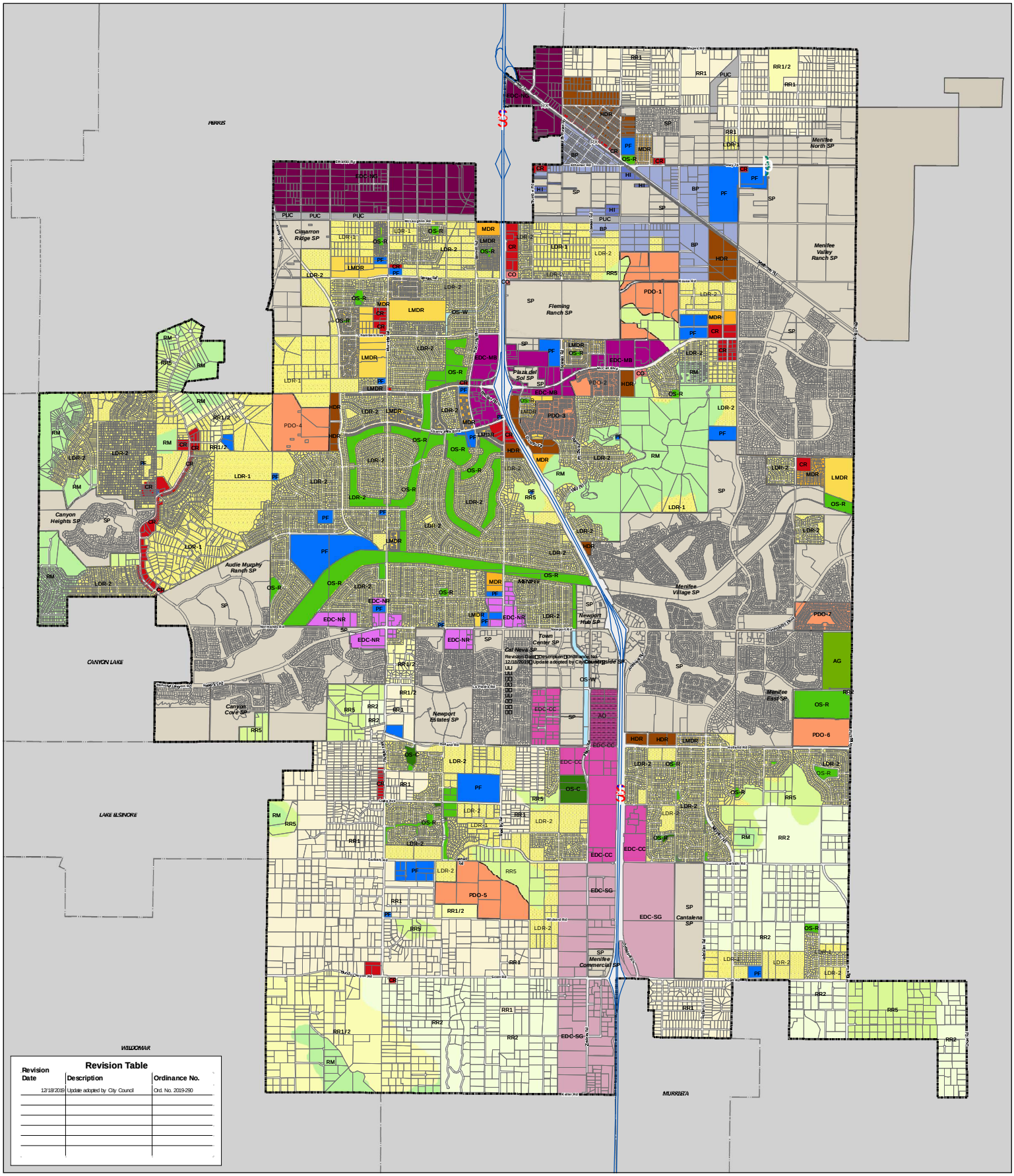

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ZONING MAP

Adopted December 18,2019

0 0.1250.25 0.5 Miles

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APPENDIX C: REGULATORY DATABASE REPORT

PARTNER

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DATABASE REPORT

Project Property:	*Menifee Commerce Center Phase 3* *26227 Sherman Road* *MENIFEE CA 92585*
Project No:	*22-366047.1*
Report Type:	*Database Report*
Order No:	*22040600526*
Requested by:	*Partner Engineering and Science, Inc.*
Date Completed:	*April 7, 2022*

Environmental Risk Information Services
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Executive Summary

Property Information:

Project Property:		*Menifee Commerce Center Phase 3* *26227 Sherman Road MENIFEE CA 92585*
Project No:		*22-366047.1*
Coordinates:		
	Latitude:	*33.73956519*
	Longitude:	*-117.18157167*
	UTM Northing:	*3,733,294.90*
	UTM Easting:	*483,181.24*
	UTM Zone:	*UTM Zone 11S*
Elevation:		*1,431 FT*

Order Information:

Order No:	*22040600526*
Date Requested:	*April 6, 2022*
Requested by:	*Partner Engineering and Science, Inc.*
Report Type:	*Database Report*

Historicals/Products:

Aerial Photographs	*Historical Aerials (with Project Boundaries)*
City Directory Search	*Smart CD Search*
ERIS Xplorer	*ERIS Xplorer*
Excel Add-On	*Excel Add-On*
Fire Insurance Maps	*US Fire Insurance Maps*
Physical Setting Report (PSR)	*Physical Setting Report (PSR)*
Topographic Map	*Topographic Maps*
Vapor Screening Tool	*Vapor Screening Tool*

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Executive Summary: Report Summary

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
Standard Environmental Records								
Federal								
DOE FUSRAP	Y	1	0	0	0	0	0	0
NPL	Y	1	0	0	0	0	0	0
PROPOSED NPL	Y	1	0	0	0	0	0	0
DELETED NPL	Y	0.5	0	0	0	0	-	0
SEMS	Y	0.5	0	0	0	0	-	0
SEMS ARCHIVE	Y	0.5	0	0	0	0	-	0
ODI	Y	0.5	0	0	0	0	-	0
CERCLIS	Y	0.5	0	0	0	0	-	0
IODI	Y	0.5	0	0	0	0	-	0
CERCLIS NFRAP	Y	0.5	0	0	0	0	-	0
CERCLIS LIENS	Y	PO	0	-	-	-	-	0
RCRA CORRACTS	Y	1	0	0	0	0	0	0
RCRA TSD	Y	0.5	0	0	0	0	-	0
RCRA LQG	Y	0.25	0	0	0	-	-	0
RCRA SQG	Y	0.25	0	0	0	-	-	0
RCRA VSQG	Y	0.25	0	0	0	-	-	0
RCRA NON GEN	Y	0.25	**1**	**4**	**2**	-	-	**7**
RCRA CONTROLS	Y	0.5	0	0	0	0	-	0
FED ENG	Y	0.5	0	0	0	0	-	0
FED INST	Y	0.5	0	0	0	0	-	0
LUCIS	Y	0.5	0	0	0	0	-	0
NPL IC	Y	0.5	0	0	0	0	-	0
ERNS 1982 TO 1986	Y	PO	0	-	-	-	-	0
ERNS 1987 TO 1989	Y	PO	0	-	-	-	-	0
ERNS	Y	PO	0	-	-	-	-	0
FED BROWNFIELDS	Y	0.5	0	0	0	0	-	0
FEMA UST	Y	0.25	0	0	0	-	-	0

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Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
FRP	Y	0.25	0	0	0	-	-	0
HIST GAS STATIONS	Y	0.25	0	0	0	-	-	0
REFN	Y	0.25	0	0	0	-	-	0
BULK TERMINAL	Y	0.25	0	0	0	-	-	0
SEMS LIEN	Y	PO	0	-	-	-	-	0
SUPERFUND ROD	Y	1	0	0	0	0	0	0
State								
RESPONSE	Y	1	0	0	0	0	0	0
ENVIROSTOR	Y	1	0	0	0	0	**3**	**3**
DELISTED ENVS	Y	1	0	0	0	0	0	0
SWF/LF	Y	0.5	0	0	0	0	-	0
SWRCB SWF	Y	0.5	0	0	0	0	-	0
WMUD	Y	0.5	0	0	0	0	-	0
HWP	Y	1	0	0	0	0	0	0
SWAT	Y	0.5	0	0	0	0	-	0
C&D DEBRIS RECY	Y	0.5	0	0	0	0	-	0
RECYCLING	Y	0.5	0	0	0	0	-	0
PROCESSORS	Y	0.5	0	0	0	0	-	0
CONTAINER RECY	Y	0.5	0	0	0	0	-	0
LDS	Y	0.5	0	0	0	0	-	0
LUST	Y	0.5	0	**1**	0	0	-	**1**
DELISTED LST	Y	0.5	0	0	0	0	-	0
UST	Y	0.25	0	0	**1**	-	-	**1**
UST CLOSURE	Y	0.5	0	0	0	0	-	0
HHSS	Y	0.25	0	0	0	-	-	0
UST SWEEPS	Y	0.25	0	0	0	-	-	0
AST	Y	0.25	0	0	0	-	-	0
AST SWRCB	Y	0.25	0	0	0	-	-	0
TANK OIL GAS	Y	0.25	0	0	0	-	-	0
DELISTED TNK	Y	0.25	0	0	0	-	-	0
CERS TANK	Y	0.25	**1**	0	**1**	-	-	**2**
DELISTED CTNK	Y	0.25	0	0	0	-	-	0
HIST TANK	Y	0.25	0	0	0	-	-	0
LUR	Y	0.5	0	0	0	0	-	0

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Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
CALSITES	Y	0.5	0	0	0	0	-	0
HLUR	Y	0.5	0	0	0	0	-	0
DEED	Y	0.5	0	0	0	0	-	0
VCP	Y	0.5	0	0	0	0	-	0
CLEANUP SITES	Y	0.5	0	0	0	0	-	0
DELISTED COUNTY	Y	0.25	0	**2**	0	-	-	**2**
Tribal								
INDIAN LUST	Y	0.5	0	0	0	0	-	0
INDIAN UST	Y	0.25	0	0	0	-	-	0
DELISTED ILST	Y	0.5	0	0	0	0	-	0
DELISTED IUST	Y	0.25	0	0	0	-	-	0
County								
LOP RIVERSIDE	Y	0.5	0	**1**	0	0	-	**1**
UST RIVERSIDE	Y	0.25	0	0	**1**	-	-	**1**
Additional Environmental Records								
Federal								
FINDS/FRS	Y	PO	**1**	**3**	-	-	-	**4**
TRIS	Y	PO	0	-	-	-	-	0
PFAS TRI	Y	0.5	0	0	0	0	-	0
PFAS NPL	Y	0.5	0	0	0	0	-	0
PFAS WATER	Y	0.5	0	0	0	0	-	0
PFAS SSEHRI	Y	0.5	0	0	0	0	-	0
HMIRS	Y	0.125	0	0	-	-	-	0
NCDL	Y	0.125	0	0	-	-	-	0
TSCA	Y	0.125	0	0	-	-	-	0
HIST TSCA	Y	0.125	0	0	-	-	-	0
FTTS ADMIN	Y	PO	0	-	-	-	-	0
FTTS INSP	Y	PO	0	-	-	-	-	0
PRP	Y	PO	0	-	-	-	-	0
SCRD DRYCLEANER	Y	0.5	0	0	0	0	-	0
ICIS	Y	PO	0	-	-	-	-	0
FED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED FED DRY	Y	0.25	0	0	0	-	-	0
FUDS	Y	1	0	0	0	0	0	0

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Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
FORMER NIKE	Y	1	0	0	0	0	0	0
PIPELINE INCIDENT	Y	PO	0	-	-	-	-	0
MLTS	Y	PO	0	-	-	-	-	0
HIST MLTS	Y	PO	0	-	-	-	-	0
MINES	Y	0.25	**3**	0	0	-	-	**3**
SMCRA	Y	1	0	0	0	0	0	0
MRDS	Y	1	0	0	0	0	0	0
URANIUM	Y	1	0	0	0	0	0	0
ALT FUELS	Y	0.25	0	0	0	-	-	0
CONSENT DECREES	Y	0.25	0	0	0	-	-	0
SSTS	Y	0.25	0	0	0	-	-	0
PCB	Y	0.5	0	0	0	0	-	0
State								
DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DRYC GRANT	Y	0.25	0	0	0	-	-	0
PFAS	Y	0.5	0	0	0	0	-	0
PFAS GW	Y	0.5	0	0	0	0	-	0
HWSS CLEANUP	Y	0.5	0	0	0	0	-	0
TOXIC PITS	Y	1	0	0	0	0	0	0
DTSC HWF	Y	0.5	0	0	0	0	-	0
INSP COMP ENF	Y	1	0	0	0	0	0	0
SCH	Y	1	0	0	0	0	**3**	**3**
CHMIRS	Y	PO	0	-	-	-	-	0
HIST CHMIRS	Y	PO	0	-	-	-	-	0
HAZNET	Y	PO	**2**	**6**	-	-	-	**8**
HIST MANIFEST	Y	PO	0	-	-	-	-	0
HW TRANSPORT	Y	0.125	0	0	-	-	-	0
WASTE TIRE	Y	PO	0	-	-	-	-	0
MEDICAL WASTE	Y	0.25	0	0	0	-	-	0
HIST CORTESE	Y	0.5	0	0	0	0	-	0
CDO/CAO	Y	0.5	0	0	0	0	-	0
CERS HAZ	Y	0.125	0	**1**	-	-	-	**1**
DELISTED HAZ	Y	0.5	**1**	0	0	**1**	-	**2**
GEOTRACKER	Y	0.125	0	0	-	-	-	0

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Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
MINE	Y	1	0	0	0	0	**1**	**1**
LIEN	Y	PO	0	-	-	-	-	0
WASTE DISCHG	Y	0.25	0	0	0	-	-	0
EMISSIONS	Y	0.25	0	0	**1**	-	-	**1**
CDL	Y	0.125	0	0	-	-	-	0
Tribal	***No Tribal additional environmental record sources available for this State.***							
County								
HWG RIVERSIDE	Y	0.125	**1**	**1**	-	-	-	**2**
HZH RIVERSIDE	Y	0.125	**1**	0	-	-	-	**1**
MED WST RIVERSIDE	Y	0.25	0	0	0	-	-	0
RMP RIVERSIDE	Y	PO	0	-	-	-	-	0
Total:			**11**	**19**	**6**	**1**	**7**	**44**

**** PO – Property Only***
**** 'Property and adjoining properties' database search radii are set at 0.25 miles.***

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Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
1	MINES	NORTH COUNTY SAND & GRAVEL INC	Riverside CA ***Mine ID:*** *0405517*	NNE	0.00 / 0.00	0	24
2	HZH RIVERSIDE	North County Sand & Gravel	26227 Sherman Rd Menifee CA 92585	N	0.00 / 0.00	0	49
2	HWG RIVERSIDE	North County Sand & Gravel	26227 Sherman Rd Menifee CA 92585	N	0.00 / 0.00	0	49
2	HAZNET	NORTH COUNTY SAND & GRAVEL INC	26227 SHERMAN RD ROMOLAND CA 92585	N	0.00 / 0.00	0	49
2	HAZNET	NORTH COUNTY SAND & GRAVEL INC	26227 SHERMAN RD ROMOLAND CA 925859223	N	0.00 / 0.00	0	50
2	FINDS/FRS	NORTH COUNTY SAND & GRAVEL INC	26227 SHERMAN RD ROMOLAND CA 92585 ***Registry ID:*** *110065412592*	N	0.00 / 0.00	0	50
2	MINES	NORTH COUNTY SAND & GRAVEL INC	Temecula CA ***Mine ID:*** *0405518*	N	0.00 / 0.00	0	51
2	MINES	NORTH COUNTY SAND & GRAVEL INC	Highland CA ***Mine ID:*** *0405632*	N	0.00 / 0.00	0	101
2	DELISTED HAZ	North County Sand & Gravel	26227 SHERMAN RD ROMOLAND CA 92585	N	0.00 / 0.00	0	121
2	CERS TANK	North County Sand & Gravel	26227 SHERMAN RD ROMOLAND CA 92585 ***Site ID:*** *52529*	N	0.00 / 0.00	0	121
2	RCRA NON GEN	NORTH COUNTY SAND & GRAVEL INC	26227 SHERMAN RD MENIFEE CA 92585-9223 ***EPA Handler ID:*** *CAL000320058*	N	0.00 / 0.00	0	135

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Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
3	HAZNET	JS COLE COMPANY	26105 SHERMAN RD MENIFEE CA 92585	N	0.01 / 68.99	0	136
3	HAZNET	PRESTIGE GUNITE OF CALIFORNIA	26105 SHERMAN RD ROMOLAND CA 92585	N	0.01 / 68.99	0	136
3	HAZNET	PACIFIC READY MIX INC	26105 SHERMAN RD ROMOLAND CA 92585	N	0.01 / 68.99	0	137
3	HAZNET	POKRAJAC CORPORATION	26105 SHERMAN RD MENIFEE CA 92584	N	0.01 / 68.99	0	138
3	HAZNET	ROMOLAND COMMERCIAL INVESTORS	26105 SHERMAN RD ROMOLAND CA 925859249	N	0.01 / 68.99	0	138
3	HAZNET	PRESTIGE GUNITE OF CALIFORNIA INC	26105 SHERMAN RD ROMOLAND CA 925859249	N	0.01 / 68.99	0	138
3	RCRA NON GEN	SUMMIT EQUIPMENT RENTALS	26105 SHERMAN RD MENIFEE CA 92586 ***EPA Handler ID:*** CAL000439231	N	0.01 / 68.99	0	139
3	RCRA NON GEN	POKRAJAC CORPORATION	26105 SHERMAN RD MENIFEE CA 92584 ***EPA Handler ID:*** CAL000387210	N	0.01 / 68.99	0	140
3	FINDS/FRS	SUMMIT EQUIPMENT RENTALS	26105 SHERMAN RD MENIFEE CA 92586 ***Registry ID:*** 110070485848	N	0.01 / 68.99	0	141
3	FINDS/FRS	POKRAJAC CORPORATION	26105 SHERMAN RD MENIFEE CA 92584 ***Registry ID:*** 110070414106	N	0.01 / 68.99	0	142
3	RCRA NON GEN	PRO STRUCTURAL INC	26105 SHERMAN RD 2ND FLR MENIFEE CA 92585 ***EPA Handler ID:*** CAL000442903	N	0.01 / 68.99	0	143
3	FINDS/FRS	PRO STRUCTURAL INC	26105 SHERMAN RD 2ND FLR MENIFEE CA 92585	N	0.01 / 68.99	0	144

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Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
			Registry ID: 110070539831				
4	DELISTED COUNTY	Tire Stop & Recycling	27491 Ethanac Rd Sun City CA 92585	NNE	0.12 / 626.07	1	145
5	LOP RIVERSIDE	Chaney's Automotive	27411 Ethanac Rd Romoland CA	N	0.12 / 630.28	0	145
			Site ID **|** ***Status Desc:*** 93620	CLOSED/ACTION COMPLETED			
5	DELISTED COUNTY	Chaney's Auto Repair	27411 Ethanac Rd Romoland CA 92585	N	0.12 / 630.28	0	145
5	LUST	CHANEY'S AUTOMOTIVE	27411 ETHANAC ROAD ROMOLAND CA 92580	N	0.12 / 630.28	0	145
			Global ID **|** ***Status*** **|** ***Status Date:*** T0606500332	COMPLETED - CASE CLOSED	2000-09-29 00:00:00		
5	HWG RIVERSIDE	Long's Automotive	27411 Ethanac Rd Menifee CA 92585	N	0.12 / 630.28	0	148
5	RCRA NON GEN	LONGS ENTERPRISES INC DBA LONGS AUTOMOTIVE	27411 ETHANAC RD SUN CITY CA 92585	N	0.12 / 630.28	0	148
			EPA Handler ID: CAL000409435				
5	CERS HAZ	Long's Automotive	27411 ETHANAC RD ROMOLAND CA 92585	N	0.12 / 630.28	0	149
6	RCRA NON GEN	GENCORP AUTO BODY SHOP	27271 ETHANAC RD MENIFEE CA 92585	NW	0.16 / 826.81	-2	154
			EPA Handler ID: CAL000414411				
7	RCRA NON GEN	EMARRA INC DBA CHRIS SHELL	1765 ETHANAC RD PERRIS CA 92585	NW	0.19 / 1,020.37	-3	156
			EPA Handler ID: CAL000442253				
7	CERS TANK	EMARRA, INC	1765 ETHANAC RD PERRIS CA 92570	NW	0.19 / 1,020.37	-3	157
			Site ID: 521879				
7	UST	EMARRA, INC	1765 Ethanac Rd PERRIS CA 92570	NW	0.19 / 1,020.37	-3	161
7	UST RIVERSIDE	Emarra, Inc.	1765 Ethanac Rd Perris CA 92570	NW	0.19 / 1,020.37	-3	162
			No of Tanks: 3				
7	EMISSIONS	EMARRA, INC	1765 ETHANAC RD PERRIS CA 92570	NW	0.19 / 1,020.37	-3	162

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Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
8	DELISTED HAZ	Perris Yard	26245 DAWSON RD ROMOLAND CA 92585	ENE	0.30 / 1,560.37	8	162
9	MINE	ROMALAND	SUN CITY CA 92585	NNW	0.53 / 2,779.90	-1	162
10	SCH	HIGH SCHOOL NO. 3	BRIGGS ROAD/PINACATE ROAD ROMOLAND CA 92585 ***Estor/EPA ID	Cleanup Status:*** 33010072 | NO FURTHER ACTION AS OF 3/19/2003	ENE	0.56 / 2,971.07	17	163
10	ENVIROSTOR	HIGH SCHOOL NO. 3	BRIGGS ROAD/PINACATE ROAD ROMOLAND CA 92585 ***Estor/EPA ID	Cleanup Status:*** 33010072 | NO FURTHER ACTION AS OF 3/19/2003	ENE	0.56 / 2,971.07	17	164
11	SCH	THE CLUB K-8 SCHOOL	EVANS ROAD/NOVA LANE ROMOLAND CA 92586 ***Estor/EPA ID	Cleanup Status:*** 33010067 | NO FURTHER ACTION AS OF 4/17/2003	WSW	0.79 / 4,155.62	-5	165
11	ENVIROSTOR	THE CLUB K-8 SCHOOL	EVANS ROAD/NOVA LANE ROMOLAND CA 92586 ***Estor/EPA ID	Cleanup Status:*** 33010067 | NO FURTHER ACTION AS OF 4/17/2003	WSW	0.79 / 4,155.62	-5	166
12	SCH	PROPOSED ELEMENTARY SCHOOL NO. 15	ROUSE ROAD/SHERMAN ROAD MENIFEE CA 92585 ***Estor/EPA ID	Cleanup Status:*** 60001068 | NO ACTION REQUIRED AS OF 5/11/2009	SSE	0.95 / 5,011.28	38	167
12	ENVIROSTOR	PROPOSED ELEMENTARY SCHOOL NO. 15	ROUSE ROAD/SHERMAN ROAD MENIFEE CA 92585 ***Estor/EPA ID	Cleanup Status:*** 60001068 | NO ACTION REQUIRED AS OF 5/11/2009	SSE	0.95 / 5,011.28	38	168

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Executive Summary: Summary by Data Source

Standard

Federal

RCRA NON GEN - RCRA Non-Generators

A search of the RCRA NON GEN database, dated Jan 31, 2022 has found that there are 7 RCRA NON GEN site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
NORTH COUNTY SAND & GRAVEL INC	26227 SHERMAN RD MENIFEE CA 92585-9223 ***EPA Handler ID**: CAL000320058*	N	0.00 / 0.00	2
PRO STRUCTURAL INC	26105 SHERMAN RD 2ND FLR MENIFEE CA 92585 ***EPA Handler ID**: CAL000442903*	N	0.01 / 68.99	3
POKRAJAC CORPORATION	26105 SHERMAN RD MENIFEE CA 92584 ***EPA Handler ID**: CAL000387210*	N	0.01 / 68.99	3
SUMMIT EQUIPMENT RENTALS	26105 SHERMAN RD MENIFEE CA 92586 ***EPA Handler ID**: CAL000439231*	N	0.01 / 68.99	3
LONGS ENTERPRISES INC DBA LONGS AUTOMOTIVE	27411 ETHANAC RD SUN CITY CA 92585 ***EPA Handler ID**: CAL000409435*	N	0.12 / 630.28	5

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
GENCORP AUTO BODY SHOP	27271 ETHANAC RD MENIFEE CA 92585 ***EPA Handler ID**: CAL000414411*	NW	0.16 / 826.81	6
EMARRA INC DBA CHRIS SHELL	1765 ETHANAC RD PERRIS CA 92585 ***EPA Handler ID**: CAL000442253*	NW	0.19 / 1,020.37	7

State

ENVIROSTOR - EnviroStor Database

A search of the ENVIROSTOR database, dated Jan 6, 2022 has found that there are 3 ENVIROSTOR site(s) within approximately 1.00 miles of the project property.

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Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
HIGH SCHOOL NO. 3	BRIGGS ROAD/PINACATE ROAD ROMOLAND CA 92585	ENE	0.56 / 2,971.07	10
	***Estor/EPA ID** | **Cleanup Status**: 33010072 | NO FURTHER ACTION AS OF 3/19/2003*			
PROPOSED ELEMENTARY SCHOOL NO. 15	ROUSE ROAD/SHERMAN ROAD MENIFEE CA 92585	SSE	0.95 / 5,011.28	12
	***Estor/EPA ID** | **Cleanup Status**: 60001068 | NO ACTION REQUIRED AS OF 5/11/2009*			

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
THE CLUB K-8 SCHOOL	EVANS ROAD/NOVA LANE ROMOLAND CA 92586	WSW	0.79 / 4,155.62	11
	***Estor/EPA ID** | **Cleanup Status**: 33010067 | NO FURTHER ACTION AS OF 4/17/2003*			

LUST - Leaking Underground Fuel Tank Reports

A search of the LUST database, dated Feb 15, 2022 has found that there are 1 LUST site(s) within approximately 0.50 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
CHANEY'S AUTOMOTIVE	27411 ETHANAC ROAD ROMOLAND CA 92580	N	0.12 / 630.28	5
	***Global ID** | **Status** | **Status Date**: T0606500332 | COMPLETED - CASE CLOSED | 2000-09-29 00:00:00*			

UST - Permitted Underground Storage Tank (UST) in GeoTracker

A search of the UST database, dated Jan 3, 2022 has found that there are 1 UST site(s) within approximately 0.25 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
EMARRA, INC	1765 Ethanac Rd PERRIS CA 92570	NW	0.19 / 1,020.37	7

CERS TANK - California Environmental Reporting System (CERS) Tanks

A search of the CERS TANK database, dated Dec 8, 2021 has found that there are 2 CERS TANK site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
North County Sand & Gravel	26227 SHERMAN RD ROMOLAND CA 92585	N	0.00 / 0.00	2
	***Site ID**: 52529*			

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
EMARRA, INC	1765 ETHANAC RD PERRIS CA 92570	NW	0.19 / 1,020.37	7
	***Site ID**: 521879*			

DELISTED COUNTY - Delisted County Records

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A search of the DELISTED COUNTY database, dated Dec 27, 2021 has found that there are 2 DELISTED COUNTY site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Tire Stop & Recycling	27491 Ethanac Rd Sun City CA 92585	NNE	0.12 / 626.07	4
Chaney's Auto Repair	27411 Ethanac Rd Romoland CA 92585	N	0.12 / 630.28	5

County

LOP RIVERSIDE - Riverside County - Local Oversight Program List

A search of the LOP RIVERSIDE database, dated Jan 18, 2022 has found that there are 1 LOP RIVERSIDE site(s) within approximately 0.50 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Chaney's Automotive	27411 Ethanac Rd Romoland CA	N	0.12 / 630.28	5
	Site ID **|** ***Status Desc****: 93620 | CLOSED/ACTION COMPLETED*			

UST RIVERSIDE - Riverside County - Underground Storage Tanks List

A search of the UST RIVERSIDE database, dated Jan 18, 2022 has found that there are 1 UST RIVERSIDE site(s) within approximately 0.25 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
Emarra, Inc.	1765 Ethanac Rd Perris CA 92570	NW	0.19 / 1,020.37	7
	No of Tanks*: 3*			

Non Standard

Federal

FINDS/FRS - Facility Registry Service/Facility Index

A search of the FINDS/FRS database, dated Nov 2, 2020 has found that there are 4 FINDS/FRS site(s) within approximately 0.02 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
NORTH COUNTY SAND & GRAVEL INC	26227 SHERMAN RD ROMOLAND CA 92585	N	0.00 / 0.00	2
	Registry ID*: 110065412592*			
PRO STRUCTURAL INC	26105 SHERMAN RD 2ND FLR MENIFEE CA 92585	N	0.01 / 68.99	3
	Registry ID*: 110070539831*			

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Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
POKRAJAC CORPORATION	26105 SHERMAN RD MENIFEE CA 92584 ***Registry ID**: 110070414106*	N	0.01 / 68.99	3
SUMMIT EQUIPMENT RENTALS	26105 SHERMAN RD MENIFEE CA 92586 ***Registry ID**: 110070485848*	N	0.01 / 68.99	3

MINES - Mines Master Index File

A search of the MINES database, dated Nov 2, 2021 has found that there are 3 MINES site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
NORTH COUNTY SAND & GRAVEL INC	Riverside CA ***Mine ID**: 0405517*	NNE	0.00 / 0.00	1
NORTH COUNTY SAND & GRAVEL INC	Highland CA ***Mine ID**: 0405632*	N	0.00 / 0.00	2
NORTH COUNTY SAND & GRAVEL INC	Temecula CA ***Mine ID**: 0405518*	N	0.00 / 0.00	2

State

SCH - School Property Evaluation Program Sites

A search of the SCH database, dated Jan 6, 2022 has found that there are 3 SCH site(s) within approximately 1.00 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
HIGH SCHOOL NO. 3	BRIGGS ROAD/PINACATE ROAD ROMOLAND CA 92585 ***Estor/EPA ID**	**Cleanup Status**: 33010072 | NO FURTHER ACTION AS OF 3/19/2003*	ENE	0.56 / 2,971.07	10
PROPOSED ELEMENTARY SCHOOL NO. 15	ROUSE ROAD/SHERMAN ROAD MENIFEE CA 92585 ***Estor/EPA ID**	**Cleanup Status**: 60001068 | NO ACTION REQUIRED AS OF 5/11/2009*	SSE	0.95 / 5,011.28	12

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
THE CLUB K-8 SCHOOL	EVANS ROAD/NOVA LANE ROMOLAND CA 92586 ***Estor/EPA ID**	**Cleanup Status**: 33010067 | NO FURTHER ACTION AS OF 4/17/2003*	WSW	0.79 / 4,155.62	11

HAZNET - Hazardous Waste Manifest Data

A search of the HAZNET database, dated Oct 24, 2016 has found that there are 8 HAZNET site(s) within approximately 0.02 miles of the project property.

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Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
NORTH COUNTY SAND & GRAVEL INC	26227 SHERMAN RD ROMOLAND CA 925859223	N	0.00 / 0.00	2
NORTH COUNTY SAND & GRAVEL INC	26227 SHERMAN RD ROMOLAND CA 92585	N	0.00 / 0.00	2
POKRAJAC CORPORATION	26105 SHERMAN RD MENIFEE CA 92584	N	0.01 / 68.99	3
PRESTIGE GUNITE OF CALIFORNIA INC	26105 SHERMAN RD ROMOLAND CA 925859249	N	0.01 / 68.99	3
PACIFIC READY MIX INC	26105 SHERMAN RD ROMOLAND CA 92585	N	0.01 / 68.99	3
PRESTIGE GUNITE OF CALIFORNIA	26105 SHERMAN RD ROMOLAND CA 92585	N	0.01 / 68.99	3
JS COLE COMPANY	26105 SHERMAN RD MENIFEE CA 92585	N	0.01 / 68.99	3
ROMOLAND COMMERCIAL INVESTORS	26105 SHERMAN RD ROMOLAND CA 925859249	N	0.01 / 68.99	3

CERS HAZ - California Environmental Reporting System (CERS) Hazardous Waste Sites

A search of the CERS HAZ database, dated Dec 8, 2021 has found that there are 1 CERS HAZ site(s) within approximately 0.12 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Long's Automotive	27411 ETHANAC RD ROMOLAND CA 92585	N	0.12 / 630.28	5

DELISTED HAZ - Delisted Environmental Reporting System (CERS) Hazardous Waste Sites

A search of the DELISTED HAZ database, dated Nov 29, 2018 has found that there are 2 DELISTED HAZ site(s) within approximately 0.50 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
North County Sand & Gravel	26227 SHERMAN RD ROMOLAND CA 92585	N	0.00 / 0.00	2

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Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Perris Yard	26245 DAWSON RD ROMOLAND CA 92585	ENE	0.30 / 1,560.37	8

MINE - Mines Listing

A search of the MINE database, dated Dec 17, 2021 has found that there are 1 MINE site(s) within approximately 1.00 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
ROMALAND	SUN CITY CA 92585	NNW	0.53 / 2,779.90	9

EMISSIONS - Toxic Pollutant Emissions Facilities

A search of the EMISSIONS database, dated Dec 31, 2019 has found that there are 1 EMISSIONS site(s) within approximately 0.25 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
EMARRA, INC	1765 ETHANAC RD PERRIS CA 92570	NW	0.19 / 1,020.37	7

County

HWG RIVERSIDE - Riverside County - Hazardous Waste Generator Sites List

A search of the HWG RIVERSIDE database, dated Jan 18, 2022 has found that there are 2 HWG RIVERSIDE site(s) within approximately 0.12 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
North County Sand & Gravel	26227 Sherman Rd Menifee CA 92585	N	0.00 / 0.00	2
Long's Automotive	27411 Ethanac Rd Menifee CA 92585	N	0.12 / 630.28	5

HZH RIVERSIDE - Riverside County - Disclosure Facility List

A search of the HZH RIVERSIDE database, dated Jan 18, 2022 has found that there are 1 HZH RIVERSIDE site(s) within approximately 0.12 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
North County Sand & Gravel	26227 Sherman Rd Menifee CA 92585	N	0.00 / 0.00	2

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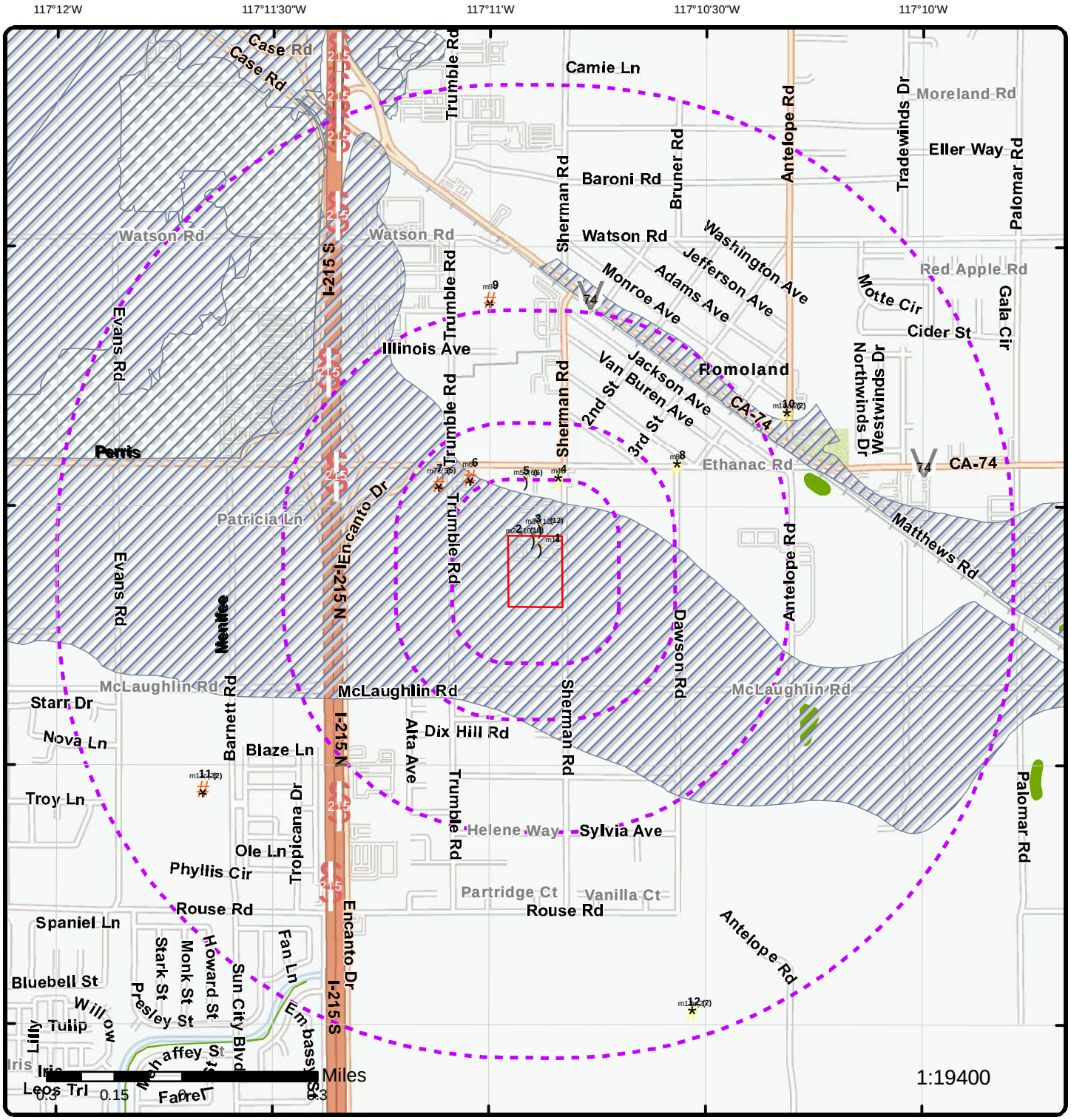

Map: 1.0 Mile Radius

Order Number: 22040600526

Address: 26227 Sherman Road, MENIFEE, CA

ERIS

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Eris Areas with Higher Elevation
- Eris Areas with Same Elevation
- Eris Areas with Lower Elevation
- Eris Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- Historic Fill
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- Plume

Source: © 2021 ESRI StreetMap Premium

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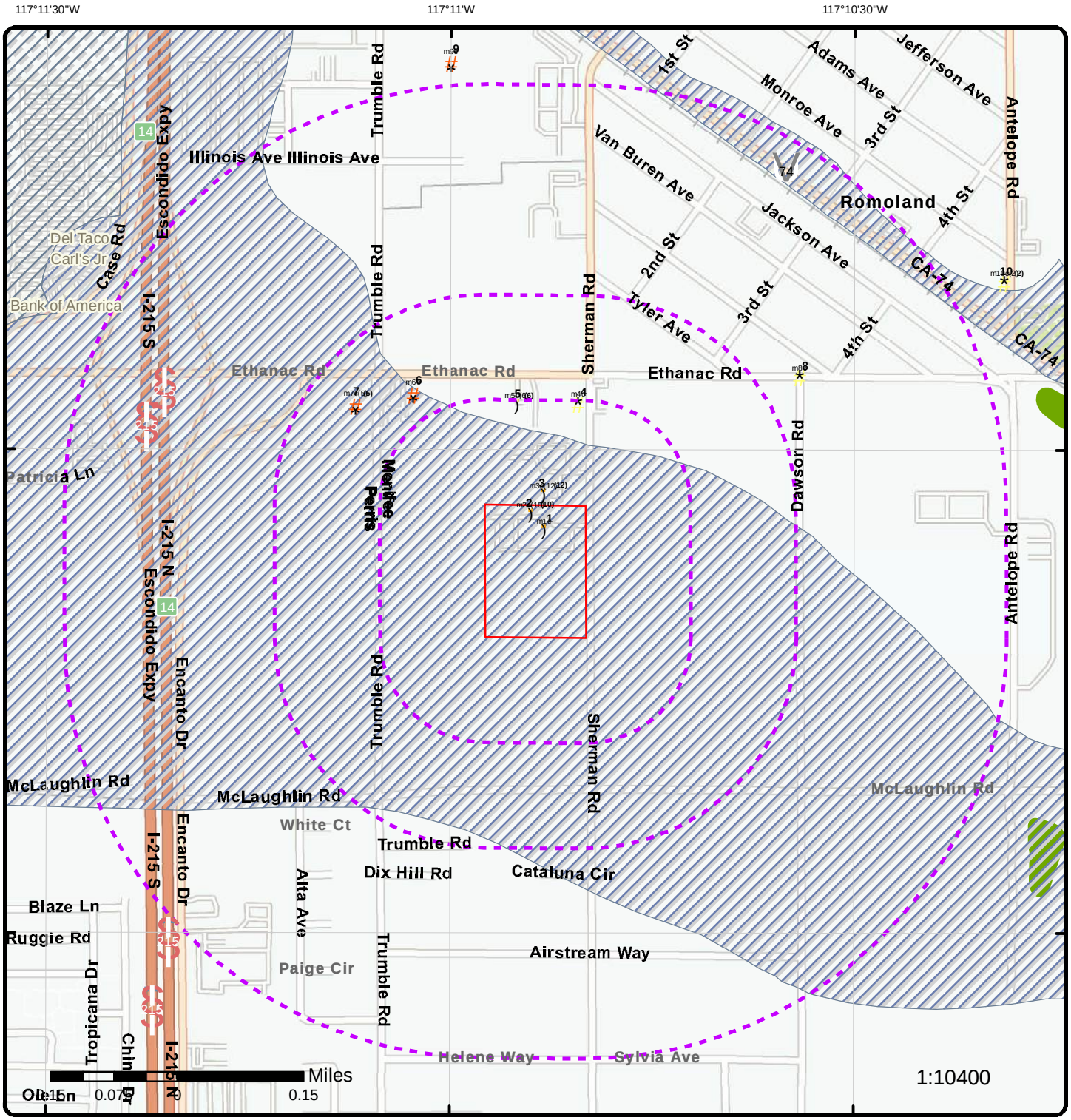

Map: 0.5 Mile Radius

Order Number: 22040600526

Address: 26227 Sherman Road, MENIFEE, CA

ERIS

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Eris Areas with Higher Elevation
- Eris Areas with Same Elevation
- Eris Areas with Lower Elevation
- Eris Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- Historic Fill
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- Plume

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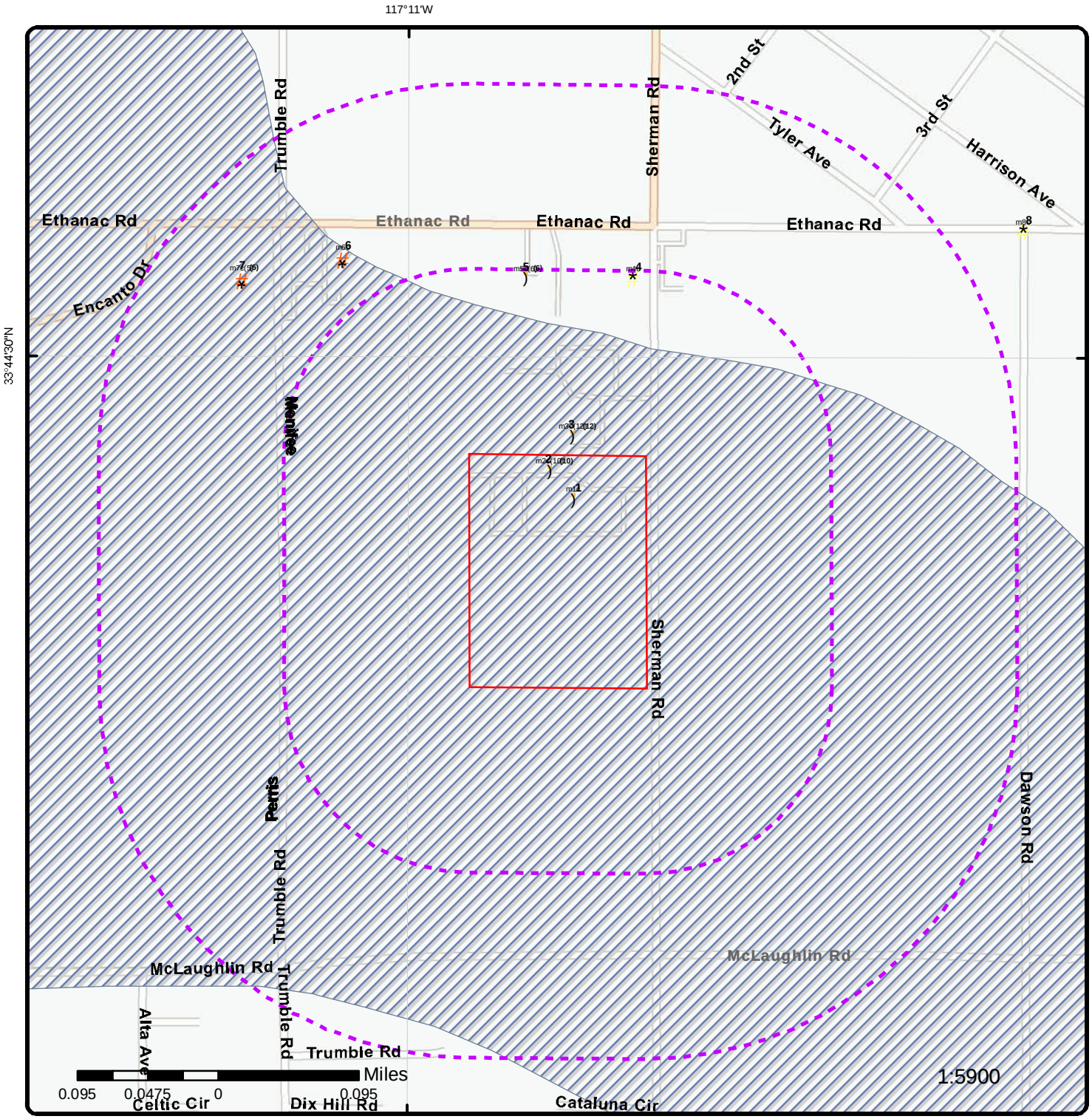

Map: 0.25 Mile Radius

Order Number: 22040600526

Address: 26227 Sherman Road, MENIFEE, CA

ERIS

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Eris Areas with Higher Elevation
- Eris Areas with Same Elevation
- Eris Areas with Lower Elevation
- Eris Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- Historic Fill
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- Plume

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Aerial **Year: 2021**

Order Number: 22040600526

Address: 26227 Sherman Road, MENIFEE, CA

Source: ESRI World Imagery

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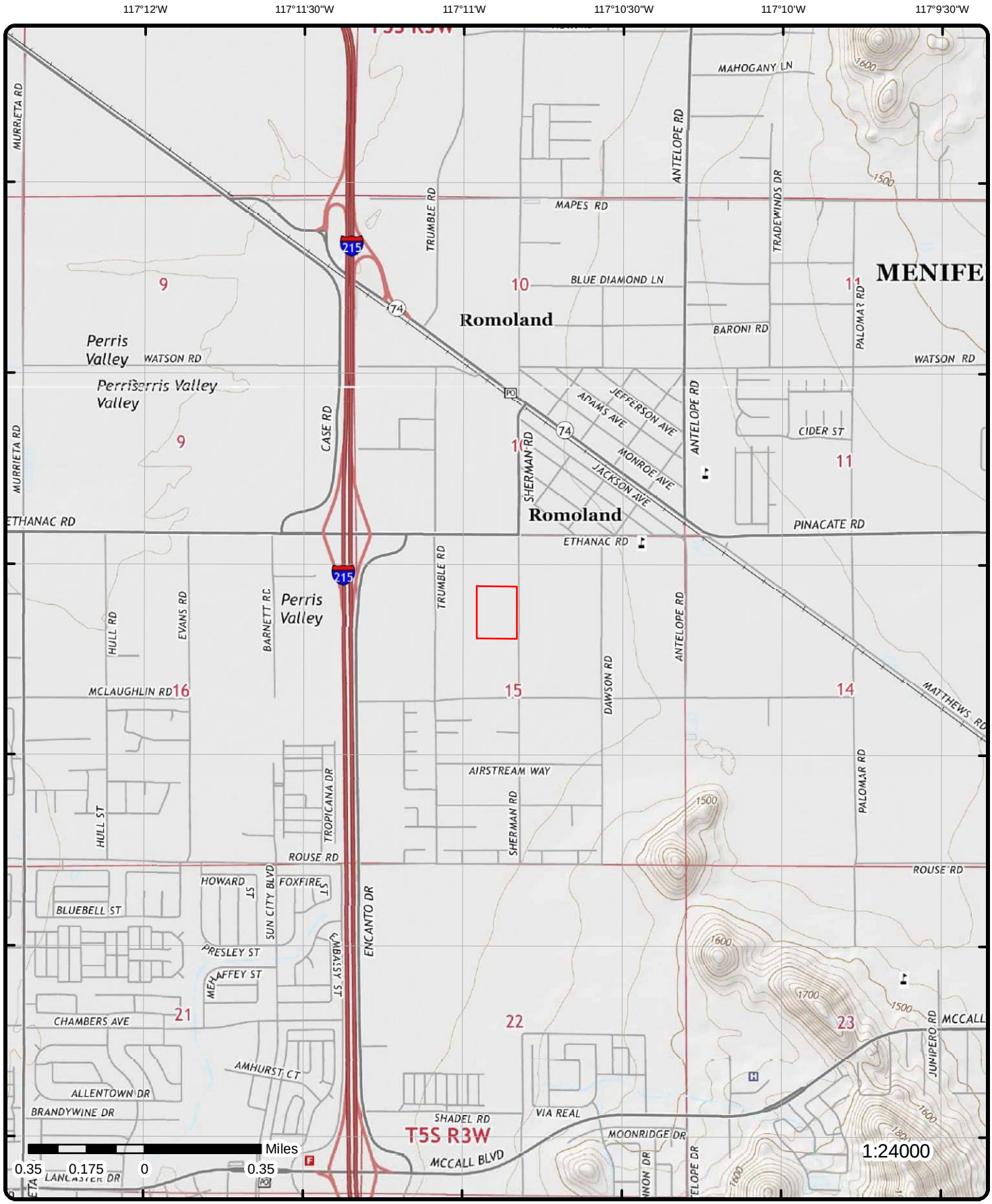

Topographic Map **Year: 2015**

Order Number: 22040600526

Address: 26227 Sherman Road, CA

Quadrangle(s): Romoland, CA; Perris, CA

Source: USGS Topographic Map

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Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	1 of 1	NNE	0.00 / 0.00	1,431.48 / 0	NORTH COUNTY SAND & GRAVEL INC Riverside CA	MINES

Mine ID:	0405517	**SIC:**	144200
Entity Name:	FAB-TECH 17	**Secondary SIC 1:**	000000
Status Code:	4	**Secondary SIC 2:**	000000
Mine Status:	Permanently Abandoned	**Secondary SIC 3:**	000000
Status Date:	20120702	**Secondary SIC 4:**	000000
Operation Class:	2 - Non-coal mining	**Secondary SIC 5:**	000000
Company Type:	Corporation	**Mines Prim SIC CD:**	144200
Assess Ctrl No:	000280982	**Primary SIC:**	Construction Sand and Gravel
Current Mine Name:	Fab-Tech 17	**Primary SIC CD 1:**	1442
Current Mine Type:	Surface	**Primary SIC CD SFX:**	00
Current Mine Status:	Abandoned	**Secondary SIC CD:**	
Current Status Dt:	07/02/2012	**Secondary SIC:**	
Current Controller ID:	M07059	**Secondary SIC CD 1:**	
Curr Controller Name:	Mike J LaPaglia	**Sec SIC CD Sfx:**	
Curr Cont Begin Dt:	01/15/2002	**Primary Canvass CD:**	5
Curr Operator ID:	L08940	**Primary Canvass:**	SandAndGravel
Curr Operator Name:	North County Sand & Gravel Inc	**Sec Canvass CD:**	
Coal Metal Ind:	M	**Secondary Canvass:**	
Mines State:	CA	**Lat Deg:**	33
No of Shops:	0	**Lat Min:**	44
No of Plants:	0	**Lat Sec:**	25
No of Pits:	000	**Long Deg:**	117
Current 103I:	Never Had 103I Status	**Long Min:**	10
Current 103I Dt:		**Long Sec:**	53
Portable Operation:	Yes	**Longitude:**	-117.181666
Portable FIPS St CD:	06	**Latitude:**	33.740555
Days Per Week:	0	**County Code:**	065
Hours Per Shift:	0	**State Code:**	06
Prod Shifts Per Day:	0	**District:**	M7
Maint Shifts Per Day:	0	**BOM State CD:**	04
No Employees:	0	**FIPS Cnty CD:**	065
Part48 Training:	Yes	**FIPS Cnty Nm:**	Riverside
Avg Mine Height:		**Cong Dist CD:**	
Mine Gas Ctgry CD:		**Contact Title:**	General Manager
Methane Liberation:		**Street:**	26227 Sherman Rd
No Producing Pits:		**Po Box:**	
No Non-Prod Pits:		**City:**	Menifee
No Tailing Ponds:	0	**State Abbr:**	CA
Pillar Recovery Used:	No	**FIPS State CD:**	06
Highwall Miner Used:	No	**State:**	California
Multiple Pits:	No	**Zip CD:**	92585
Miners Rep Ind:	No	**Country:**	USA
Safety Committee Ind:	No	**Province:**	
Miles from Office:	50	**Postal CD:**	
Directions to Mine:	Portable Operation Various Locations. Office: 215, exit Ethanac East, Sherman Rd right, down on right	**Primary SIC CD:**	Construction Sand and Gravel
Office CD:	M7831	**State Abbrev:**	CA
Office Name:	San Bernardino CA Field Office		
Status Description:	The mine has been permanently shut down.		
Source File Desc:	Master Index File;MINES Data Set		

Violation Details

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Event No:	1152380	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	12/16/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	11/01/2010
Controller ID:	M07059	***Last Action Dt:***	01/26/2011
Inj Illness:	LostDays	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	11/01/2010
Inspection Begin Dt:	10/29/2010	***Cal Yr:***	2010
Negligence:	ModNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	10/29/2010	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	11/03/2010
Violation No:	8560322	***Fiscal Yr:***	2011
Enforcement Area:		***Termination Time:***	1355
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/29/2010	***Part Section:***	56.14100(c)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0805	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/21/2011	***Docket No:***	
Violation Occur Dt:	10/29/2010	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	5	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	0623069	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	11/14/2002
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	03/25/2003
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/05/2002
Inspection Begin Dt:	04/04/2002	***Cal Yr:***	2002
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	04/17/2002	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/15/2002
Violation No:	6339845	***Fiscal Yr:***	2002
Enforcement Area:		***Termination Time:***	1000
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/04/2002	***Vacate Time:***	
Violation Issue Dt:	04/04/2002	***Part Section:***	56.20003(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1505	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	12/25/2002	***Docket No:***	
Violation Occur Dt:	04/04/2002	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

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Violation Details

Event No:	1142962	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	06/18/2009
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	05/05/2009
Controller ID:	M07059	***Last Action Dt:***	03/01/2010
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	05/05/2009
Inspection Begin Dt:	05/04/2009	***Cal Yr:***	2009
Negligence:	HighNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	05/04/2009	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	05/05/2009
Violation No:	7980691	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	0900
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	05/04/2009	***Part Section:***	50.30(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1340	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/24/2009	***Docket No:***	
Violation Occur Dt:	04/16/2009	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	1	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1152380	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	12/16/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	11/01/2010
Controller ID:	M07059	***Last Action Dt:***	01/26/2011
Inj Illness:	LostDays	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	11/01/2010
Inspection Begin Dt:	10/29/2010	***Cal Yr:***	2010
Negligence:	HighNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	10/29/2010	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	11/02/2010
Violation No:	8560326	***Fiscal Yr:***	2011
Enforcement Area:		***Termination Time:***	1228
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/29/2010	***Part Section:***	56.14100(c)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0825	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/21/2011	***Docket No:***	
Violation Occur Dt:	10/29/2010	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	5	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	4		

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Violation Details

Event No:	0623069	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	06/21/2002
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	11/01/2002
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/16/2002
Inspection Begin Dt:	04/04/2002	***Cal Yr:***	2002
Negligence:	HighNegligence	***Latest Term Due Tm:***	1600
Inspection End Dt:	04/17/2002	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/16/2002
Violation No:	6339849	***Fiscal Yr:***	2002
Enforcement Area:		***Termination Time:***	1445
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/15/2002	***Vacate Time:***	
Violation Issue Dt:	04/15/2002	***Part Section:***	46.3(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1250	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/09/2002	***Docket No:***	
Violation Occur Dt:	04/15/2002	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1152380	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	12/16/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	11/01/2010
Controller ID:	M07059	***Last Action Dt:***	01/26/2011
Inj Illness:	LostDays	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	11/01/2010
Inspection Begin Dt:	10/29/2010	***Cal Yr:***	2010
Negligence:	ModNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	10/29/2010	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	11/03/2010
Violation No:	8560324	***Fiscal Yr:***	2011
Enforcement Area:		***Termination Time:***	1256
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/29/2010	***Part Section:***	56.14100(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0810	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/21/2011	***Docket No:***	
Violation Occur Dt:	10/29/2010	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	5	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	

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Violator Insp Day Cnt: 4

Violation Details

Event No:	1117203	***Amount Paid:***	66
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	06/11/2003
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	07/01/2003
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	02/19/2003
Inspection Begin Dt:	02/19/2003	***Cal Yr:***	2003
Negligence:	ModNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	02/19/2003	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	02/19/2003
Violation No:	6349289	***Fiscal Yr:***	2003
Enforcement Area:		***Termination Time:***	0810
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	02/19/2003	***Vacate Time:***	
Violation Issue Dt:	02/19/2003	***Part Section:***	56.9300(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0800	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/06/2003	***Docket No:***	
Violation Occur Dt:	02/19/2003	***Section of Act 2:***	
Proposed Penalty:	66	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	66	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1147644	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	11/19/2009
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	09/28/2009
Controller ID:	M07059	***Last Action Dt:***	10/28/2010
Inj Illness:	LostDays	***Orig Term Due Tm:***	0800
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	09/28/2009
Inspection Begin Dt:	09/24/2009	***Cal Yr:***	2009
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	10/01/2009	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	10/01/2009
Violation No:	6485335	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	0730
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	09/24/2009	***Part Section:***	56.12004
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1155	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	12/25/2009	***Docket No:***	
Violation Occur Dt:	09/24/2009	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	2	***Contested Ind:***	No

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Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	0623069	***Amount Paid:***	800
Initial Viol No:	6339840	***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	11/14/2002
Replaced by Ord No:		***Cit Ord Safe:***	Order
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	03/25/2003
Inj Illness:	Permanent	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	
Inspection Begin Dt:	04/04/2002	***Cal Yr:***	2002
Negligence:	HighNegligence	***Latest Term Due Tm:***	
Inspection End Dt:	04/17/2002	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/15/2002
Violation No:	6339841	***Fiscal Yr:***	2002
Enforcement Area:		***Termination Time:***	0905
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/04/2002	***Vacate Time:***	
Violation Issue Dt:	04/04/2002	***Part Section:***	56.14107(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1440	***Section of Act 1:***	104(d)(1)
Final Ord Issue Dt:	12/25/2002	***Docket No:***	
Violation Occur Dt:	04/04/2002	***Section of Act 2:***	
Proposed Penalty:	800	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	800	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1117207	***Amount Paid:***	
Initial Viol No:	6349295	***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	
Replaced by Ord No:		***Cit Ord Safe:***	Order
Mine Type:	Surface	***Last Action Cd:***	
Likelihood:		***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	
Inj Illness:		***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	
Inspection Begin Dt:	04/01/2003	***Cal Yr:***	2003
Negligence:		***Latest Term Due Tm:***	
Inspection End Dt:	04/02/2003	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/03/2003
Violation No:	6349362	***Fiscal Yr:***	2003
Enforcement Area:		***Termination Time:***	1405
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/01/2003	***Vacate Time:***	
Violation Issue Dt:	04/01/2003	***Part Section:***	56.12028
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	
Violation Issue Time:	0800	***Section of Act 1:***	104(b)
Final Ord Issue Dt:		***Docket No:***	
Violation Occur Dt:	04/01/2003	***Section of Act 2:***	
Proposed Penalty:		***Docket Stat Cd:***	

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Violator Violation Cnt:		***Contested Ind:***	No
Amount Due:		***Contested Dt:***	
Violator Insp Day Cnt:			

Violation Details

Event No:	0623069	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	06/21/2002
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	11/01/2002
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/15/2002
Inspection Begin Dt:	04/04/2002	***Cal Yr:***	2002
Negligence:	HighNegligence	***Latest Term Due Tm:***	1600
Inspection End Dt:	04/17/2002	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/15/2002
Violation No:	6339848	***Fiscal Yr:***	2002
Enforcement Area:		***Termination Time:***	1530
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/15/2002	***Vacate Time:***	
Violation Issue Dt:	04/15/2002	***Part Section:***	56.1000
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1240	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/09/2002	***Docket No:***	
Violation Occur Dt:	04/15/2002	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	0623069	***Amount Paid:***	800
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	11/14/2002
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	03/25/2003
Inj Illness:	Permanent	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/04/2002
Inspection Begin Dt:	04/04/2002	***Cal Yr:***	2002
Negligence:	HighNegligence	***Latest Term Due Tm:***	1600
Inspection End Dt:	04/17/2002	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/15/2002
Violation No:	6339840	***Fiscal Yr:***	2002
Enforcement Area:		***Termination Time:***	0950
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/04/2002	***Vacate Time:***	
Violation Issue Dt:	04/04/2002	***Part Section:***	56.14107(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1425	***Section of Act 1:***	104(d)(1)
Final Ord Issue Dt:	12/25/2002	***Docket No:***	
Violation Occur Dt:	04/04/2002	***Section of Act 2:***	

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Proposed Penalty:	800	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	800	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1160184	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	02/16/2012
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	NoLikelihood	**Orig Term Due Dt:**	01/12/2012
Controller ID:	M07059	**Last Action Dt:**	01/17/2013
Inj Illness:	NoLostDays	**Orig Term Due Tm:**	1500
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	0	**Latest Term Due Dt:**	01/12/2012
Inspection Begin Dt:	01/12/2012	**Cal Yr:**	2012
Negligence:	HighNegligence	**Latest Term Due Tm:**	1500
Inspection End Dt:	01/12/2012	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	01/12/2012
Violation No:	8607452	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	1400
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	01/12/2012	**Part Section:**	50.30(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1000	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	03/24/2012	**Docket No:**	
Violation Occur Dt:	07/16/2011	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	6	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1152380	**Amount Paid:**	807
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	12/16/2010
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	11/01/2010
Controller ID:	M07059	**Last Action Dt:**	01/26/2011
Inj Illness:	Fatal	**Orig Term Due Tm:**	0900
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	11/01/2010
Inspection Begin Dt:	10/29/2010	**Cal Yr:**	2010
Negligence:	HighNegligence	**Latest Term Due Tm:**	0900
Inspection End Dt:	10/29/2010	**Cal Qtr:**	4
Written Notice:		**Termination Dt:**	11/02/2010
Violation No:	8560325	**Fiscal Yr:**	2011
Enforcement Area:		**Termination Time:**	1220
Violator ID:	L08940	**Fiscal Qtr:**	1
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	10/29/2010	**Part Section:**	56.14200
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0815	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	01/21/2011	**Docket No:**	

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Violation Occur Dt:	10/29/2010	**Section of Act 2:**	
Proposed Penalty:	807	**Docket Stat Cd:**	
Violator Violation Cnt:	5	**Contested Ind:**	No
Amount Due:	807	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1122449	**Amount Paid:**	203
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	05/17/2005
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	04/12/2006
Inj Illness:	Permanent	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	02/17/2005
Inspection Begin Dt:	02/10/2005	**Cal Yr:**	2005
Negligence:	ModNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	02/11/2005	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	03/03/2005
Violation No:	6354975	**Fiscal Yr:**	2005
Enforcement Area:		**Termination Time:**	0910
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	02/10/2005	**Vacate Time:**	
Violation Issue Dt:	02/10/2005	**Part Section:**	56.4102
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0850	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	06/25/2005	**Docket No:**	
Violation Occur Dt:	02/10/2005	**Section of Act 2:**	
Proposed Penalty:	203	**Docket Stat Cd:**	
Violator Violation Cnt:	9	**Contested Ind:**	No
Amount Due:	203	**Contested Dt:**	
Violator Insp Day Cnt:	7		

Violation Details

Event No:	1122449	**Amount Paid:**	60
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	05/17/2005
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	NoLikelihood	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	08/24/2005
Inj Illness:	NoLostDays	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	0	**Latest Term Due Dt:**	02/10/2005
Inspection Begin Dt:	02/10/2005	**Cal Yr:**	2005
Negligence:	ModNegligence	**Latest Term Due Tm:**	1500
Inspection End Dt:	02/11/2005	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	02/10/2005
Violation No:	6354976	**Fiscal Yr:**	2005
Enforcement Area:		**Termination Time:**	1230
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	02/10/2005	**Vacate Time:**	
Violation Issue Dt:	02/10/2005	**Part Section:**	56.1000
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1115	**Section of Act 1:**	104(a)

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Final Ord Issue Dt:	06/25/2005	***Docket No:***	
Violation Occur Dt:	02/10/2005	***Section of Act 2:***	
Proposed Penalty:	60	***Docket Stat Cd:***	
Violator Violation Cnt:	9	***Contested Ind:***	No
Amount Due:	60	***Contested Dt:***	
Violator Insp Day Cnt:	7		

Violation Details

Event No:	0623069	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	11/14/2002
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	03/25/2003
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/05/2002
Inspection Begin Dt:	04/04/2002	***Cal Yr:***	2002
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	04/17/2002	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/15/2002
Violation No:	6339836	***Fiscal Yr:***	2002
Enforcement Area:		***Termination Time:***	0920
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/04/2002	***Vacate Time:***	
Violation Issue Dt:	04/04/2002	***Part Section:***	56.4104(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1355	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	12/25/2002	***Docket No:***	
Violation Occur Dt:	04/04/2002	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1147644	***Amount Paid:***	362
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	11/19/2009
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	09/24/2009
Controller ID:	M07059	***Last Action Dt:***	10/28/2010
Inj Illness:	Permanent	***Orig Term Due Tm:***	1100
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	09/24/2009
Inspection Begin Dt:	09/24/2009	***Cal Yr:***	2009
Negligence:	HighNegligence	***Latest Term Due Tm:***	1100
Inspection End Dt:	10/01/2009	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	10/01/2009
Violation No:	6485333	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	0720
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	09/24/2009	***Part Section:***	56.14100(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed

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Violation Issue Time:	1030	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	12/25/2009	**Docket No:**	
Violation Occur Dt:	09/24/2009	**Section of Act 2:**	
Proposed Penalty:	362	**Docket Stat Cd:**	
Violator Violation Cnt:	2	**Contested Ind:**	No
Amount Due:	362	**Contested Dt:**	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	0623069	**Amount Paid:**	55
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	11/14/2002
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	03/25/2003
Inj Illness:	LostDays	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/05/2002
Inspection Begin Dt:	04/04/2002	**Cal Yr:**	2002
Negligence:	ModNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	04/17/2002	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/15/2002
Violation No:	6339838	**Fiscal Yr:**	2002
Enforcement Area:		**Termination Time:**	0930
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	04/04/2002	**Vacate Time:**	
Violation Issue Dt:	04/04/2002	**Part Section:**	56.4201(a)(2)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1405	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	12/25/2002	**Docket No:**	
Violation Occur Dt:	04/04/2002	**Section of Act 2:**	
Proposed Penalty:	55	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	55	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	0623069	**Amount Paid:**	66
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	11/14/2002
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	03/25/2003
Inj Illness:	LostDays	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	2	**Latest Term Due Dt:**	04/05/2002
Inspection Begin Dt:	04/04/2002	**Cal Yr:**	2002
Negligence:	ModNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	04/17/2002	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/15/2002
Violation No:	6339835	**Fiscal Yr:**	2002
Enforcement Area:		**Termination Time:**	0915
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	04/04/2002	**Vacate Time:**	
Violation Issue Dt:	04/04/2002	**Part Section:**	56.20008(a)

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Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1350	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	12/25/2002	**Docket No:**	
Violation Occur Dt:	04/04/2002	**Section of Act 2:**	
Proposed Penalty:	66	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	66	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1152380	**Amount Paid:**	162
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	12/16/2010
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	11/01/2010
Controller ID:	M07059	**Last Action Dt:**	01/26/2011
Inj Illness:	Fatal	**Orig Term Due Tm:**	0900
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	11/01/2010
Inspection Begin Dt:	10/29/2010	**Cal Yr:**	2010
Negligence:	HighNegligence	**Latest Term Due Tm:**	0900
Inspection End Dt:	10/29/2010	**Cal Qtr:**	4
Written Notice:		**Termination Dt:**	11/02/2010
Violation No:	8560323	**Fiscal Yr:**	2011
Enforcement Area:		**Termination Time:**	1225
Violator ID:	L08940	**Fiscal Qtr:**	1
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	10/29/2010	**Part Section:**	56.14132(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0807	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	01/21/2011	**Docket No:**	
Violation Occur Dt:	10/29/2010	**Section of Act 2:**	
Proposed Penalty:	162	**Docket Stat Cd:**	
Violator Violation Cnt:	5	**Contested Ind:**	No
Amount Due:	162	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	0623069	**Amount Paid:**	66
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	11/14/2002
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	03/25/2003
Inj Illness:	LostDays	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/04/2002
Inspection Begin Dt:	04/04/2002	**Cal Yr:**	2002
Negligence:	ModNegligence	**Latest Term Due Tm:**	1530
Inspection End Dt:	04/17/2002	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/17/2002
Violation No:	6339846	**Fiscal Yr:**	2002
Enforcement Area:		**Termination Time:**	1010
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	04/04/2002	**Vacate Time:**	

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Violation Issue Dt:	04/04/2002	**Part Section:**	56.14101(a)(3)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1515	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	12/25/2002	**Docket No:**	
Violation Occur Dt:	04/04/2002	**Section of Act 2:**	
Proposed Penalty:	66	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	66	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	0623069	**Amount Paid:**	231
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	06/21/2002
Replaced by Ord No:		**Cit Ord Safe:**	Order
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	11/01/2002
Inj Illness:	Fatal	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	
Inspection Begin Dt:	04/04/2002	**Cal Yr:**	2002
Negligence:	HighNegligence	**Latest Term Due Tm:**	
Inspection End Dt:	04/17/2002	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/17/2002
Violation No:	6339850	**Fiscal Yr:**	2002
Enforcement Area:		**Termination Time:**	0505
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	04/15/2002	**Vacate Time:**	
Violation Issue Dt:	04/15/2002	**Part Section:**	46.8(a)(1)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1300	**Section of Act 1:**	104(g)(1)
Final Ord Issue Dt:	08/09/2002	**Docket No:**	
Violation Occur Dt:	04/15/2002	**Section of Act 2:**	
Proposed Penalty:	231	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	231	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1117203	**Amount Paid:**	55
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	06/11/2003
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	07/01/2003
Inj Illness:	LostDays	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	02/22/2003
Inspection Begin Dt:	02/19/2003	**Cal Yr:**	2003
Negligence:	ModNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	02/19/2003	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	04/01/2003
Violation No:	6349292	**Fiscal Yr:**	2003
Enforcement Area:		**Termination Time:**	0820
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	

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Right to Conf Dt:	02/19/2003	***Vacate Time:***	
Violation Issue Dt:	02/19/2003	***Part Section:***	56.14100(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0825	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/06/2003	***Docket No:***	
Violation Occur Dt:	02/19/2003	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1117203	***Amount Paid:***	113
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	06/11/2003
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	07/01/2003
Inj Illness:	Fatal	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	02/20/2003
Inspection Begin Dt:	02/19/2003	***Cal Yr:***	2003
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	02/19/2003	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	02/19/2003
Violation No:	6349290	***Fiscal Yr:***	2003
Enforcement Area:		***Termination Time:***	1559
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	02/19/2003	***Vacate Time:***	
Violation Issue Dt:	02/19/2003	***Part Section:***	56.14101(a)(2)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0810	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/06/2003	***Docket No:***	
Violation Occur Dt:	02/19/2003	***Section of Act 2:***	
Proposed Penalty:	113	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	113	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	0623069	***Amount Paid:***	500
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	11/14/2002
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	03/25/2003
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/05/2002
Inspection Begin Dt:	04/04/2002	***Cal Yr:***	2002
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	04/17/2002	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/15/2002
Violation No:	6339834	***Fiscal Yr:***	2002
Enforcement Area:		***Termination Time:***	1100
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	

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Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/04/2002	***Vacate Time:***	
Violation Issue Dt:	04/04/2002	***Part Section:***	56.15001
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1345	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	12/25/2002	***Docket No:***	
Violation Occur Dt:	04/04/2002	***Section of Act 2:***	
Proposed Penalty:	500	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	500	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1147644	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	11/19/2009
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	09/25/2009
Controller ID:	M07059	***Last Action Dt:***	10/28/2010
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	0935
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	09/25/2009
Inspection Begin Dt:	09/24/2009	***Cal Yr:***	2009
Negligence:	ModNegligence	***Latest Term Due Tm:***	0935
Inspection End Dt:	10/01/2009	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	09/25/2009
Violation No:	6485336	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	0935
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	09/25/2009	***Part Section:***	46.9(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0925	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	12/25/2009	***Docket No:***	
Violation Occur Dt:	09/25/2009	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	2	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1117207	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	06/11/2003
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	07/01/2003
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	2	***Latest Term Due Dt:***	04/16/2003
Inspection Begin Dt:	04/01/2003	***Cal Yr:***	2003
Negligence:	NoNegligence	***Latest Term Due Tm:***	1500
Inspection End Dt:	04/02/2003	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/03/2003
Violation No:	6349363	***Fiscal Yr:***	2003
Enforcement Area:		***Termination Time:***	1408
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No

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Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	04/01/2003	**Vacate Time:**	
Violation Issue Dt:	04/01/2003	**Part Section:**	46.9(b)(5)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0835	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	08/06/2003	**Docket No:**	
Violation Occur Dt:	04/01/2003	**Section of Act 2:**	
Proposed Penalty:	55	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	55	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1160141	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	08/18/2011
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	NoLikelihood	**Orig Term Due Dt:**	07/07/2011
Controller ID:	M07059	**Last Action Dt:**	07/15/2013
Inj Illness:	NoLostDays	**Orig Term Due Tm:**	0900
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	0	**Latest Term Due Dt:**	07/07/2011
Inspection Begin Dt:	07/06/2011	**Cal Yr:**	2011
Negligence:	HighNegligence	**Latest Term Due Tm:**	0900
Inspection End Dt:	07/06/2011	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	07/11/2011
Violation No:	8560400	**Fiscal Yr:**	2011
Enforcement Area:		**Termination Time:**	0614
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	07/06/2011	**Part Section:**	56.1000
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1200	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	09/24/2011	**Docket No:**	
Violation Occur Dt:	07/06/2011	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	6	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	0623069	**Amount Paid:**	55
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	11/14/2002
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	03/25/2003
Inj Illness:	LostDays	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/05/2002
Inspection Begin Dt:	04/04/2002	**Cal Yr:**	2002
Negligence:	ModNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	04/17/2002	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/15/2002
Violation No:	6339847	**Fiscal Yr:**	2002
Enforcement Area:		**Termination Time:**	1010
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated

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Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/04/2002	***Vacate Time:***	
Violation Issue Dt:	04/04/2002	***Part Section:***	56.14100(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1517	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	12/25/2002	***Docket No:***	
Violation Occur Dt:	04/04/2002	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1122449	***Amount Paid:***	60
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	05/17/2005
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	08/24/2005
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	02/17/2005
Inspection Begin Dt:	02/10/2005	***Cal Yr:***	2005
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	02/11/2005	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	03/03/2005
Violation No:	6354973	***Fiscal Yr:***	2005
Enforcement Area:		***Termination Time:***	0855
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	02/10/2005	***Vacate Time:***	
Violation Issue Dt:	02/10/2005	***Part Section:***	56.14101(a)(2)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0800	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	06/25/2005	***Docket No:***	
Violation Occur Dt:	02/10/2005	***Section of Act 2:***	
Proposed Penalty:	60	***Docket Stat Cd:***	
Violator Violation Cnt:	9	***Contested Ind:***	No
Amount Due:	60	***Contested Dt:***	
Violator Insp Day Cnt:	7		

Violation Details

Event No:	1147644	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	11/19/2009
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	09/24/2009
Controller ID:	M07059	***Last Action Dt:***	10/28/2010
Inj Illness:	LostDays	***Orig Term Due Tm:***	1100
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	09/24/2009
Inspection Begin Dt:	09/24/2009	***Cal Yr:***	2009
Negligence:	ModNegligence	***Latest Term Due Tm:***	1100
Inspection End Dt:	10/01/2009	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	09/24/2009
Violation No:	6485334	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	1110
Violator ID:	L08940	***Fiscal Qtr:***	4

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Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	09/24/2009	**Part Section:**	56.9300(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1030	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	12/25/2009	**Docket No:**	
Violation Occur Dt:	09/24/2009	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	2	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	0623069	**Amount Paid:**	800
Initial Viol No:	6339840	**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	11/14/2002
Replaced by Ord No:		**Cit Ord Safe:**	Order
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	03/25/2003
Inj Illness:	Permanent	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	
Inspection Begin Dt:	04/04/2002	**Cal Yr:**	2002
Negligence:	HighNegligence	**Latest Term Due Tm:**	
Inspection End Dt:	04/17/2002	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/15/2002
Violation No:	6339843	**Fiscal Yr:**	2002
Enforcement Area:		**Termination Time:**	0909
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	04/04/2002	**Vacate Time:**	
Violation Issue Dt:	04/04/2002	**Part Section:**	56.14107(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1455	**Section of Act 1:**	104(d)(1)
Final Ord Issue Dt:	12/25/2002	**Docket No:**	
Violation Occur Dt:	04/04/2002	**Section of Act 2:**	
Proposed Penalty:	800	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	800	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1160132	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	06/16/2011
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	NoLikelihood	**Orig Term Due Dt:**	05/02/2011
Controller ID:	M07059	**Last Action Dt:**	04/10/2014
Inj Illness:	NoLostDays	**Orig Term Due Tm:**	1500
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	0	**Latest Term Due Dt:**	05/02/2011
Inspection Begin Dt:	05/02/2011	**Cal Yr:**	2011
Negligence:	HighNegligence	**Latest Term Due Tm:**	1500
Inspection End Dt:	05/02/2011	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	05/03/2011
Violation No:	8560384	**Fiscal Yr:**	2011
Enforcement Area:		**Termination Time:**	1123

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Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	05/02/2011	***Part Section:***	56.1000
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1200	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/23/2011	***Docket No:***	
Violation Occur Dt:	05/02/2011	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	6	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1117203	***Amount Paid:***	109
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	06/11/2003
Replaced by Ord No:	6349362	***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	07/01/2003
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	02/21/2003
Inspection Begin Dt:	02/19/2003	***Cal Yr:***	2003
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	02/19/2003	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	
Violation No:	6349295	***Fiscal Yr:***	2003
Enforcement Area:		***Termination Time:***	
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	ReplacedByOrder
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	02/19/2003	***Vacate Time:***	
Violation Issue Dt:	02/19/2003	***Part Section:***	56.12028
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1230	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/06/2003	***Docket No:***	
Violation Occur Dt:	02/19/2003	***Section of Act 2:***	
Proposed Penalty:	109	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	109	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1152380	***Amount Paid:***	807
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	12/16/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	10/29/2010
Controller ID:	M07059	***Last Action Dt:***	01/26/2011
Inj Illness:	Fatal	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	10/29/2010
Inspection Begin Dt:	10/29/2010	***Cal Yr:***	2010
Negligence:	HighNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	10/29/2010	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	10/29/2010
Violation No:	8560327	***Fiscal Yr:***	2011

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Enforcement Area:		***Termination Time:***	0900
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/29/2010	***Part Section:***	56.14100(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0830	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/21/2011	***Docket No:***	
Violation Occur Dt:	10/29/2010	***Section of Act 2:***	
Proposed Penalty:	807	***Docket Stat Cd:***	
Violator Violation Cnt:	5	***Contested Ind:***	No
Amount Due:	807	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1142912	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	12/18/2008
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	11/04/2008
Controller ID:	M07059	***Last Action Dt:***	04/08/2009
Inj Illness:	Permanent	***Orig Term Due Tm:***	0800
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	11/04/2008
Inspection Begin Dt:	11/03/2008	***Cal Yr:***	2008
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	11/04/2008	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	11/04/2008
Violation No:	6440074	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	0730
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	11/03/2008	***Part Section:***	56.14107(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1313	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/28/2009	***Docket No:***	
Violation Occur Dt:	11/03/2008	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	0623069	***Amount Paid:***	800
Initial Viol No:	6339840	***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	11/14/2002
Replaced by Ord No:		***Cit Ord Safe:***	Order
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	03/25/2003
Inj Illness:	Permanent	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	
Inspection Begin Dt:	04/04/2002	***Cal Yr:***	2002
Negligence:	HighNegligence	***Latest Term Due Tm:***	
Inspection End Dt:	04/17/2002	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/15/2002

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Violation No:	6339844	**Fiscal Yr:**	2002
Enforcement Area:		**Termination Time:**	0911
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	04/04/2002	**Vacate Time:**	
Violation Issue Dt:	04/04/2002	**Part Section:**	56.14107(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1500	**Section of Act 1:**	104(d)(1)
Final Ord Issue Dt:	12/25/2002	**Docket No:**	
Violation Occur Dt:	04/04/2002	**Section of Act 2:**	
Proposed Penalty:	800	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	800	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1147644	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	11/19/2009
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	09/24/2009
Controller ID:	M07059	**Last Action Dt:**	10/28/2010
Inj Illness:	LostDays	**Orig Term Due Tm:**	1100
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	09/24/2009
Inspection Begin Dt:	09/24/2009	**Cal Yr:**	2009
Negligence:	ModNegligence	**Latest Term Due Tm:**	1100
Inspection End Dt:	10/01/2009	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	10/01/2009
Violation No:	6485332	**Fiscal Yr:**	2009
Enforcement Area:		**Termination Time:**	1015
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	09/24/2009	**Part Section:**	56.14132(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1020	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	12/25/2009	**Docket No:**	
Violation Occur Dt:	09/24/2009	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	2	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1117203	**Amount Paid:**	264
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	06/11/2003
Replaced by Ord No:		**Cit Ord Safe:**	Order
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Highly	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	07/01/2003
Inj Illness:	Fatal	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	
Inspection Begin Dt:	02/19/2003	**Cal Yr:**	2003
Negligence:	HighNegligence	**Latest Term Due Tm:**	
Inspection End Dt:	02/19/2003	**Cal Qtr:**	1

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Written Notice:		***Termination Dt:***	02/19/2003
Violation No:	6349294	***Fiscal Yr:***	2003
Enforcement Area:		***Termination Time:***	0846
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	02/19/2003	***Vacate Time:***	
Violation Issue Dt:	02/19/2003	***Part Section:***	56.14211(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0845	***Section of Act 1:***	107(a)
Final Ord Issue Dt:	08/06/2003	***Docket No:***	
Violation Occur Dt:	02/19/2003	***Section of Act 2:***	104(a)
Proposed Penalty:	264	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	264	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1119713	***Amount Paid:***	305
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	03/09/2004
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	11/23/2004
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	02/05/2004
Inspection Begin Dt:	02/04/2004	***Cal Yr:***	2004
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	02/05/2004	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	02/05/2004
Violation No:	6354731	***Fiscal Yr:***	2004
Enforcement Area:		***Termination Time:***	0740
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	02/04/2004	***Vacate Time:***	
Violation Issue Dt:	02/04/2004	***Part Section:***	56.9300(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1350	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	04/15/2004	***Docket No:***	
Violation Occur Dt:	02/04/2004	***Section of Act 2:***	
Proposed Penalty:	305	***Docket Stat Cd:***	
Violator Violation Cnt:	25	***Contested Ind:***	No
Amount Due:	305	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1122449	***Amount Paid:***	247
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	05/17/2005
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	04/12/2006
Inj Illness:	Fatal	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	02/10/2005
Inspection Begin Dt:	02/10/2005	***Cal Yr:***	2005
Negligence:	ModNegligence	***Latest Term Due Tm:***	0815

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Inspection End Dt:	02/11/2005	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	02/10/2005
Violation No:	6354972	**Fiscal Yr:**	2005
Enforcement Area:		**Termination Time:**	1200
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	02/10/2005	**Vacate Time:**	
Violation Issue Dt:	02/10/2005	**Part Section:**	56.14130(g)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0745	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	06/25/2005	**Docket No:**	
Violation Occur Dt:	02/10/2005	**Section of Act 2:**	
Proposed Penalty:	247	**Docket Stat Cd:**	
Violator Violation Cnt:	9	**Contested Ind:**	No
Amount Due:	247	**Contested Dt:**	
Violator Insp Day Cnt:	7		

Violation Details

Event No:	1122449	**Amount Paid:**	60
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	05/17/2005
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	08/24/2005
Inj Illness:	LostDays	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	02/17/2005
Inspection Begin Dt:	02/10/2005	**Cal Yr:**	2005
Negligence:	ModNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	02/11/2005	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	03/03/2005
Violation No:	6354974	**Fiscal Yr:**	2005
Enforcement Area:		**Termination Time:**	0900
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	02/10/2005	**Vacate Time:**	
Violation Issue Dt:	02/10/2005	**Part Section:**	56.14100(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0830	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	06/25/2005	**Docket No:**	
Violation Occur Dt:	02/10/2005	**Section of Act 2:**	
Proposed Penalty:	60	**Docket Stat Cd:**	
Violator Violation Cnt:	9	**Contested Ind:**	No
Amount Due:	60	**Contested Dt:**	
Violator Insp Day Cnt:	7		

Violation Details

Event No:	1117203	**Amount Paid:**	55
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	06/11/2003
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	07/01/2003
Inj Illness:	LostDays	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	02/21/2003
Inspection Begin Dt:	02/19/2003	**Cal Yr:**	2003

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Negligence:	ModNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	02/19/2003	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	04/01/2003
Violation No:	6349291	**Fiscal Yr:**	2003
Enforcement Area:		**Termination Time:**	0845
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	02/19/2003	**Vacate Time:**	
Violation Issue Dt:	02/19/2003	**Part Section:**	56.14100(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0815	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	08/06/2003	**Docket No:**	
Violation Occur Dt:	02/19/2003	**Section of Act 2:**	
Proposed Penalty:	55	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	55	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	0623069	**Amount Paid:**	800
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	11/14/2002
Replaced by Ord No:		**Cit Ord Safe:**	Order
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	03/25/2003
Inj Illness:	Permanent	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	
Inspection Begin Dt:	04/04/2002	**Cal Yr:**	2002
Negligence:	HighNegligence	**Latest Term Due Tm:**	
Inspection End Dt:	04/17/2002	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/15/2002
Violation No:	6339842	**Fiscal Yr:**	2002
Enforcement Area:		**Termination Time:**	0907
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	04/04/2002	**Vacate Time:**	
Violation Issue Dt:	04/04/2002	**Part Section:**	56.14107(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1450	**Section of Act 1:**	104(d)(1)
Final Ord Issue Dt:	12/25/2002	**Docket No:**	
Violation Occur Dt:	04/04/2002	**Section of Act 2:**	
Proposed Penalty:	800	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	800	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1117203	**Amount Paid:**	113
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 17	**Bill Print Dt:**	06/11/2003
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	07/01/2003
Inj Illness:	Fatal	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	02/20/2003

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Inspection Begin Dt:	02/19/2003	***Cal Yr:***	2003
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	02/19/2003	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	04/01/2003
Violation No:	6349293	***Fiscal Yr:***	2003
Enforcement Area:		***Termination Time:***	0820
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	02/19/2003	***Vacate Time:***	
Violation Issue Dt:	02/19/2003	***Part Section:***	56.14131(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0830	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/06/2003	***Docket No:***	
Violation Occur Dt:	02/19/2003	***Section of Act 2:***	
Proposed Penalty:	113	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	113	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	0623069	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	11/14/2002
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	03/25/2003
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/05/2002
Inspection Begin Dt:	04/04/2002	***Cal Yr:***	2002
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	04/17/2002	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/15/2002
Violation No:	6339837	***Fiscal Yr:***	2002
Enforcement Area:		***Termination Time:***	0925
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/04/2002	***Vacate Time:***	
Violation Issue Dt:	04/04/2002	***Part Section:***	56.4104(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1400	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	12/25/2002	***Docket No:***	
Violation Occur Dt:	04/04/2002	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	0623069	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 17	***Bill Print Dt:***	11/14/2002
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	03/25/2003
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

No Affected:	1	**Latest Term Due Dt:**	04/05/2002
Inspection Begin Dt:	04/04/2002	**Cal Yr:**	2002
Negligence:	ModNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	04/17/2002	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/15/2002
Violation No:	6339839	**Fiscal Yr:**	2002
Enforcement Area:		**Termination Time:**	0935
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	04/04/2002	**Vacate Time:**	
Violation Issue Dt:	04/04/2002	**Part Section:**	56.14100(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1415	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	12/25/2002	**Docket No:**	
Violation Occur Dt:	04/04/2002	**Section of Act 2:**	
Proposed Penalty:	55	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	55	**Contested Dt:**	
Violator Insp Day Cnt:	0		

2	*1 of 10*	*N*	*0.00 / 0.00*	*1,431.48 / 0*	***North County Sand & Gravel 26227 Sherman Rd Menifee CA 92585***	***HZH RIVERSIDE***

2	*2 of 10*	*N*	*0.00 / 0.00*	*1,431.48 / 0*	***North County Sand & Gravel 26227 Sherman Rd Menifee CA 92585***	***HWG RIVERSIDE***

2	*3 of 10*	*N*	*0.00 / 0.00*	*1,431.48 / 0*	***NORTH COUNTY SAND & GRAVEL INC 26227 SHERMAN RD ROMOLAND CA 92585***	***HAZNET***

SIC Code:		**Mailing City:**	MURRIETA
NAICS Code:		**Mailing State:**	CA
EPA ID:	CAC002605464	**Mailing Zip:**	925636401
Create Date:	6/27/2006	**Region Code:**	4
Fac Act Ind:	No	**Owner Name:**	NORTH COUNTY SAND & GRAVEL CORP
Inact Date:	12/25/2006	**Owner Addr 1:**	40485D MURRIETA HOT SPRINGS RD
County Code:	33	**Owner Addr 2:**	STE 115
County Name:	Riverside	**Owner City:**	MURRIETA
Mail Name:		**Owner State:**	CA
Mailing Addr 1:	40485D MURRIETA HOT SPRINGS RD	**Owner Zip:**	925636401
Mailing Addr 2:	STE 115	**Owner Phone:**	9516779631
Owner Fax:			

Contact Information

--	--
Contact Name:	TRACY LAPAGLIA
Street Address 1:	40485D MURRIETA HOT SPRINGS RD
Street Address 2:	STE 115
City:	MURRIETA
State:	CA
Zip:	925636401
Phone:	9516779631
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Tanner Information

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Generator EPA ID:	CAC002605464
Generator County Code:	33
Generator County:	Riverside
TSD EPA ID:	CAD097030993
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	352
State Waste Code Desc.:	Other organic solids
Method Code:	H01
Method Description:	Transfer station
Tons:	0.25
Year:	2006
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
2	4 of 10	N	0.00 / 0.00	1,431.48 / 0	NORTH COUNTY SAND & GRAVEL INC 26227 SHERMAN RD ROMOLAND CA 925859223	HAZNET

SIC Code:	5032,5039,5063,5074,5211,5231	**Mailing City:**	SUN CITY
NAICS Code:	44419	**Mailing State:**	CA
EPA ID:	CAL000320058	**Mailing Zip:**	925859223
Create Date:	5/25/2007	**Region Code:**	4
Fac Act Ind:	Yes	**Owner Name:**	NORTH COUNTY SAND & GRAVEL INC
Inact Date:		**Owner Addr 1:**	26227 SHERMAN RD
County Code:	33	**Owner Addr 2:**	
County Name:	Riverside	**Owner City:**	SUN CITY
Mail Name:		**Owner State:**	CA
Mailing Addr 1:	26227 SHERMAN RD	**Owner Zip:**	925859223
Mailing Addr 2:		**Owner Phone:**	9519282881
Owner Fax:	9519282885		

Contact Information

--	--
Contact Name:	MICHAEL LAPAGLIA IV
Street Address 1:	26227 SHERMAN RD
Street Address 2:	
City:	SUN CITY
State:	CA
Zip:	925859223
Phone:	9519282881
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
2	5 of 10	N	0.00 / 0.00	1,431.48 / 0	NORTH COUNTY SAND & GRAVEL INC 26227 SHERMAN RD ROMOLAND CA 92585	FINDS/FRS

Registry ID:	110065412592
FIPS Code:	06065
HUC Code:	18070202
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	
Create Date:	13-OCT-15
Update Date:	
Interest Types:	OTHER HAZARDOUS WASTE ACTIVITIES, STATE MASTER
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	
NAICS Code Descriptions:	
Conveyor:	FRS-GEOCODE
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	49

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Census Block Code:	060650427281009
EPA Region Code:	09
County Name:	RIVERSIDE
US/Mexico Border Ind:	
Latitude:	33.74059
Longitude:	-117.18156
Reference Point:	CENTER OF A FACILITY OR STATION
Coord Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Accuracy Value:	30
Datum:	NAD83
Source:	
Facility Detail Rprt URL:	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110065412592
Program Acronyms:	

CA-ENVIROVIEW:52529, RCRAINFO:CAL000320058

2	6 of 10	N	0.00 / 0.00	1,431.48 / 0	NORTH COUNTY SAND & GRAVEL INC Temecula CA	MINES

Mine ID:	0405518	**SIC:**	144200
Entity Name:	FAB-TECH 18	**Secondary SIC 1:**	000000
Status Code:	4	**Secondary SIC 2:**	000000
Mine Status:	Permanently Abandoned	**Secondary SIC 3:**	000000
Status Date:	20170104	**Secondary SIC 4:**	000000
Operation Class:	2 - Non-coal mining	**Secondary SIC 5:**	000000
Company Type:	Corporation	**Mines Prim SIC CD:**	144200
Assess Ctrl No:	000429161	**Primary SIC:**	Construction Sand and Gravel
Current Mine Name:	Fab-Tech 18	**Primary SIC CD 1:**	1442
Current Mine Type:	Surface	**Primary SIC CD SFX:**	00
Current Mine Status:	Abandoned	**Secondary SIC CD:**	
Current Status Dt:	01/04/2017	**Secondary SIC:**	
Current Controller ID:	M07059	**Secondary SIC CD 1:**	
Curr Controller Name:	Mike J LaPaglia	**Sec SIC CD Sfx:**	
Curr Cont Begin Dt:	04/10/2002	**Primary Canvass CD:**	5
Curr Operator ID:	L08940	**Primary Canvass:**	SandAndGravel
Curr Operator Name:	North County Sand & Gravel Inc	**Sec Canvass CD:**	
Coal Metal Ind:	M	**Secondary Canvass:**	
Mines State:	CA	**Lat Deg:**	33
No of Shops:	0	**Lat Min:**	44
No of Plants:	0	**Lat Sec:**	26
No of Pits:	000	**Long Deg:**	117
Current 103I:	Never Had 103I Status	**Long Min:**	10
Current 103I Dt:		**Long Sec:**	54
Portable Operation:	Yes	**Longitude:**	-117.181667
Portable FIPS St CD:	06	**Latitude:**	33.740556
Days Per Week:	0	**County Code:**	065
Hours Per Shift:	0	**State Code:**	06
Prod Shifts Per Day:	0	**District:**	M7
Maint Shifts Per Day:	0	**BOM State CD:**	04
No Employees:	0	**FIPS Cnty CD:**	065
Part48 Training:	Yes	**FIPS Cnty Nm:**	Riverside
Avg Mine Height:		**Cong Dist CD:**	
Mine Gas Ctgry CD:		**Contact Title:**	General Manager
Methane Liberation:		**Street:**	26227 Sherman Rd
No Producing Pits:		**Po Box:**	
No Non-Prod Pits:		**City:**	Menifee
No Tailing Ponds:	0	**State Abbr:**	CA
Pillar Recovery Used:	No	**FIPS State CD:**	06
Highwall Miner Used:	No	**State:**	California
Multiple Pits:	No	**Zip CD:**	92585
Miners Rep Ind:	No	**Country:**	USA
Safety Committee Ind:	No	**Province:**	
Miles from Office:	65	**Postal CD:**	
Directions to Mine:	Portable Operation Various Locations. Office:	**Primary SIC CD:**	Construction Sand and Gravel

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215 exit Ethanac east, Sherman Rd right, down on right

Office CD:	M7831	***State Abbrev:***	CA
Office Name:	San Bernardino CA Field Office		
Status Description:	The mine has been permanently shut down.		
Source File Desc:	Master Index File;MINES Data Set		

Violation Details

Event No:	0622786	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	10/10/2002
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	11/01/2002
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	08/16/2002
Inspection Begin Dt:	08/15/2002	***Cal Yr:***	2002
Negligence:	ModNegligence	***Latest Term Due Tm:***	1500
Inspection End Dt:	08/16/2002	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	08/16/2002
Violation No:	6340687	***Fiscal Yr:***	2002
Enforcement Area:		***Termination Time:***	1116
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	08/15/2002	***Vacate Time:***	
Violation Issue Dt:	08/15/2002	***Part Section:***	56.9300(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1619	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	11/01/2002	***Docket No:***	
Violation Occur Dt:	08/15/2002	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1160778	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	05/15/2014
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	04/18/2014
Controller ID:	M07059	***Last Action Dt:***	06/17/2014
Inj Illness:	LostDays	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	05/05/2014
Inspection Begin Dt:	04/09/2014	***Cal Yr:***	2014
Negligence:	ModNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	04/10/2014	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	05/05/2014
Violation No:	8689940	***Fiscal Yr:***	2014
Enforcement Area:		***Termination Time:***	1437
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/10/2014	***Part Section:***	56.12028
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed

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Violation Issue Time:	0900	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	06/21/2014	**Docket No:**	
Violation Occur Dt:	04/10/2014	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	9	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	6		

Violation Details

Event No:	1160325	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	04/19/2012
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	03/13/2012
Controller ID:	M07059	**Last Action Dt:**	01/11/2013
Inj Illness:	LostDays	**Orig Term Due Tm:**	1630
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	03/13/2012
Inspection Begin Dt:	03/13/2012	**Cal Yr:**	2012
Negligence:	LowNegligence	**Latest Term Due Tm:**	1630
Inspection End Dt:	03/13/2012	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	03/15/2012
Violation No:	8607681	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	1952
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	03/13/2012	**Part Section:**	56.14100(c)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1530	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	05/25/2012	**Docket No:**	
Violation Occur Dt:	03/13/2012	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	6	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1160355	**Amount Paid:**	873
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	09/13/2012
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	07/25/2012
Controller ID:	M07059	**Last Action Dt:**	07/23/2013
Inj Illness:	Permanent	**Orig Term Due Tm:**	1010
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	07/25/2012
Inspection Begin Dt:	07/25/2012	**Cal Yr:**	2012
Negligence:	ModNegligence	**Latest Term Due Tm:**	1010
Inspection End Dt:	07/26/2012	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	07/25/2012
Violation No:	8607748	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	1410
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	07/25/2012	**Part Section:**	56.14112(b)

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Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1006	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	10/20/2012	**Docket No:**	
Violation Occur Dt:	07/25/2012	**Section of Act 2:**	
Proposed Penalty:	873	**Docket Stat Cd:**	
Violator Violation Cnt:	10	**Contested Ind:**	No
Amount Due:	873	**Contested Dt:**	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	6669436	**Amount Paid:**	114
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	01/19/2017
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	NoLikelihood	**Orig Term Due Dt:**	11/29/2016
Controller ID:	M07059	**Last Action Dt:**	02/13/2017
Inj Illness:	NoLostDays	**Orig Term Due Tm:**	1100
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	0	**Latest Term Due Dt:**	11/29/2016
Inspection Begin Dt:	11/29/2016	**Cal Yr:**	2016
Negligence:	ModNegligence	**Latest Term Due Tm:**	1100
Inspection End Dt:	11/29/2016	**Cal Qtr:**	4
Written Notice:		**Termination Dt:**	11/29/2016
Violation No:	8874752	**Fiscal Yr:**	2017
Enforcement Area:		**Termination Time:**	1355
Violator ID:	L08940	**Fiscal Qtr:**	1
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	11/29/2016	**Part Section:**	56.1000
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0950	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	03/05/2017	**Docket No:**	
Violation Occur Dt:	11/29/2016	**Section of Act 2:**	
Proposed Penalty:	114	**Docket Stat Cd:**	
Violator Violation Cnt:	14	**Contested Ind:**	No
Amount Due:	114	**Contested Dt:**	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1160627	**Amount Paid:**	392
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	10/18/2012
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	08/30/2012
Controller ID:	M07059	**Last Action Dt:**	06/12/2013
Inj Illness:	LostDays	**Orig Term Due Tm:**	1500
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	08/30/2012
Inspection Begin Dt:	08/29/2012	**Cal Yr:**	2012
Negligence:	HighNegligence	**Latest Term Due Tm:**	1500
Inspection End Dt:	09/07/2012	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	09/07/2012
Violation No:	8689475	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	0924
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	

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Violation Issue Dt:	08/29/2012	**Part Section:**	56.4102
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1102	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	11/23/2012	**Docket No:**	
Violation Occur Dt:	08/29/2012	**Section of Act 2:**	
Proposed Penalty:	392	**Docket Stat Cd:**	
Violator Violation Cnt:	10	**Contested Ind:**	No
Amount Due:	392	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1160852	**Amount Paid:**	162
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	02/14/2013
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	01/07/2013
Controller ID:	M07059	**Last Action Dt:**	09/18/2014
Inj Illness:	Permanent	**Orig Term Due Tm:**	0900
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	01/07/2013
Inspection Begin Dt:	01/04/2013	**Cal Yr:**	2013
Negligence:	ModNegligence	**Latest Term Due Tm:**	0900
Inspection End Dt:	01/08/2013	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	01/07/2013
Violation No:	8689803	**Fiscal Yr:**	2013
Enforcement Area:		**Termination Time:**	1354
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	01/04/2013	**Part Section:**	56.14107(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0825	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	03/23/2013	**Docket No:**	
Violation Occur Dt:	01/04/2013	**Section of Act 2:**	
Proposed Penalty:	162	**Docket Stat Cd:**	
Violator Violation Cnt:	18	**Contested Ind:**	No
Amount Due:	162	**Contested Dt:**	
Violator Insp Day Cnt:	6		

Violation Details

Event No:	1128314	**Amount Paid:**	60
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	02/01/2006
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	09/08/2005
Controller ID:	M07059	**Last Action Dt:**	05/30/2006
Inj Illness:	Permanent	**Orig Term Due Tm:**	1200
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	09/08/2005
Inspection Begin Dt:	09/07/2005	**Cal Yr:**	2005
Negligence:	ModNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	09/08/2005	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	09/08/2005
Violation No:	6380826	**Fiscal Yr:**	2005
Enforcement Area:		**Termination Time:**	1040
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	

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Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	09/07/2005	***Part Section:***	56.14112(a)(1)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1020	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	03/16/2006	***Docket No:***	
Violation Occur Dt:	09/07/2005	***Section of Act 2:***	
Proposed Penalty:	60	***Docket Stat Cd:***	
Violator Violation Cnt:	7	***Contested Ind:***	No
Amount Due:	60	***Contested Dt:***	
Violator Insp Day Cnt:	9		

Violation Details

Event No:	1142087	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	09/18/2008
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	08/15/2008
Controller ID:	M07059	***Last Action Dt:***	02/24/2010
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	0800
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	08/15/2008
Inspection Begin Dt:	08/13/2008	***Cal Yr:***	2008
Negligence:	HighNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	08/13/2008	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	08/18/2008
Violation No:	6440027	***Fiscal Yr:***	2008
Enforcement Area:		***Termination Time:***	1216
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	08/13/2008	***Part Section:***	50.30(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1045	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/25/2008	***Docket No:***	
Violation Occur Dt:	08/13/2008	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	6	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1142304	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	01/17/2008
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	12/17/2007
Controller ID:	M07059	***Last Action Dt:***	03/31/2009
Inj Illness:	Fatal	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	12/17/2007
Inspection Begin Dt:	12/17/2007	***Cal Yr:***	2007
Negligence:	ModNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	12/17/2007	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	12/17/2007
Violation No:	7992985	***Fiscal Yr:***	2008
Enforcement Area:		***Termination Time:***	0845
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	

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Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	12/17/2007	**Part Section:**	56.14132(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0830	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	02/28/2008	**Docket No:**	
Violation Occur Dt:	12/17/2007	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	8	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1152933	**Amount Paid:**	317
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	09/15/2011
Replaced by Ord No:		**Cit Ord Safe:**	Order
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	08/12/2014
Inj Illness:	Permanent	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	11	**Latest Term Due Dt:**	
Inspection Begin Dt:	04/06/2011	**Cal Yr:**	2011
Negligence:	HighNegligence	**Latest Term Due Tm:**	
Inspection End Dt:	04/19/2011	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/19/2011
Violation No:	8567235	**Fiscal Yr:**	2011
Enforcement Area:		**Termination Time:**	1113
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/11/2011	**Part Section:**	46.8(a)(2)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1000	**Section of Act 1:**	104(g)(1)
Final Ord Issue Dt:	10/22/2011	**Docket No:**	
Violation Occur Dt:	04/11/2011	**Section of Act 2:**	
Proposed Penalty:	317	**Docket Stat Cd:**	
Violator Violation Cnt:	2	**Contested Ind:**	No
Amount Due:	317	**Contested Dt:**	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	1160865	**Amount Paid:**	4961
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	06/13/2013
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	04/17/2013
Controller ID:	M07059	**Last Action Dt:**	03/23/2016
Inj Illness:	Fatal	**Orig Term Due Tm:**	1300
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/18/2013
Inspection Begin Dt:	04/17/2013	**Cal Yr:**	2013
Negligence:	HighNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	04/18/2013	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/18/2013
Violation No:	8689825	**Fiscal Yr:**	2013
Enforcement Area:		**Termination Time:**	0834
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes

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Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/17/2013	**Part Section:**	56.14112(a)(1)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1023	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	11/25/2014	**Docket No:**	
Violation Occur Dt:	04/17/2013	**Section of Act 2:**	
Proposed Penalty:	5961	**Docket Stat Cd:**	
Violator Violation Cnt:	21	**Contested Ind:**	No
Amount Due:	4961	**Contested Dt:**	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	6595646	**Amount Paid:**	540
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	08/13/2015
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	06/24/2015
Controller ID:	M07059	**Last Action Dt:**	05/05/2016
Inj Illness:	LostDays	**Orig Term Due Tm:**	1130
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	06/24/2015
Inspection Begin Dt:	06/23/2015	**Cal Yr:**	2015
Negligence:	ModNegligence	**Latest Term Due Tm:**	1130
Inspection End Dt:	06/30/2015	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	06/29/2015
Violation No:	8788313	**Fiscal Yr:**	2015
Enforcement Area:		**Termination Time:**	1320
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Mill	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	06/24/2015	**Part Section:**	56.20003(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1054	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	10/13/2015	**Docket No:**	
Violation Occur Dt:	06/24/2015	**Section of Act 2:**	
Proposed Penalty:	540	**Docket Stat Cd:**	
Violator Violation Cnt:	14	**Contested Ind:**	No
Amount Due:	540	**Contested Dt:**	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	6595659	**Amount Paid:**	362
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	10/15/2015
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	08/25/2015
Controller ID:	M07059	**Last Action Dt:**	04/22/2016
Inj Illness:	Fatal	**Orig Term Due Tm:**	1100
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	08/26/2015
Inspection Begin Dt:	08/25/2015	**Cal Yr:**	2015
Negligence:	ModNegligence	**Latest Term Due Tm:**	0710
Inspection End Dt:	08/26/2015	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	08/26/2015
Violation No:	8788353	**Fiscal Yr:**	2015
Enforcement Area:		**Termination Time:**	1137
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated

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Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Mill	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	08/25/2015	***Part Section:***	56.12008
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0957	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	11/18/2015	***Docket No:***	
Violation Occur Dt:	08/25/2015	***Section of Act 2:***	
Proposed Penalty:	362	***Docket Stat Cd:***	
Violator Violation Cnt:	14	***Contested Ind:***	No
Amount Due:	362	***Contested Dt:***	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	1119389	***Amount Paid:***	60
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	09/14/2004
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	12/13/2004
Inj Illness:	Permanent	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	05/19/2004
Inspection Begin Dt:	05/19/2004	***Cal Yr:***	2004
Negligence:	HighNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	05/19/2004	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	05/19/2004
Violation No:	6361716	***Fiscal Yr:***	2004
Enforcement Area:		***Termination Time:***	0935
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	05/19/2004	***Vacate Time:***	
Violation Issue Dt:	05/19/2004	***Part Section:***	56.14132(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0900	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/29/2004	***Docket No:***	
Violation Occur Dt:	05/19/2004	***Section of Act 2:***	
Proposed Penalty:	60	***Docket Stat Cd:***	
Violator Violation Cnt:	8	***Contested Ind:***	No
Amount Due:	60	***Contested Dt:***	
Violator Insp Day Cnt:	12		

Violation Details

Event No:	1119775	***Amount Paid:***	60
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	06/14/2005
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	04/12/2006
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	03/09/2005
Inspection Begin Dt:	03/08/2005	***Cal Yr:***	2005
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	03/09/2005	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	03/09/2005
Violation No:	6369884	***Fiscal Yr:***	2005
Enforcement Area:		***Termination Time:***	0710
Violator ID:	L08940	***Fiscal Qtr:***	2

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Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	03/08/2005	**Vacate Time:**	
Violation Issue Dt:	03/08/2005	**Part Section:**	56.14100(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1310	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	07/29/2005	**Docket No:**	
Violation Occur Dt:	03/08/2005	**Section of Act 2:**	
Proposed Penalty:	60	**Docket Stat Cd:**	
Violator Violation Cnt:	7	**Contested Ind:**	No
Amount Due:	60	**Contested Dt:**	
Violator Insp Day Cnt:	11		

Violation Details

Event No:	1160865	**Amount Paid:**	5961
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	06/13/2013
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	04/17/2013
Controller ID:	M07059	**Last Action Dt:**	07/27/2015
Inj Illness:	Fatal	**Orig Term Due Tm:**	1200
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/18/2013
Inspection Begin Dt:	04/17/2013	**Cal Yr:**	2013
Negligence:	HighNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	04/18/2013	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/18/2013
Violation No:	8689821	**Fiscal Yr:**	2013
Enforcement Area:		**Termination Time:**	0835
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/17/2013	**Part Section:**	56.14107(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0909	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	11/25/2014	**Docket No:**	
Violation Occur Dt:	04/17/2013	**Section of Act 2:**	
Proposed Penalty:	5961	**Docket Stat Cd:**	
Violator Violation Cnt:	21	**Contested Ind:**	No
Amount Due:	5961	**Contested Dt:**	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	1160628	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	10/18/2012
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	NoLikelihood	**Orig Term Due Dt:**	08/31/2012
Controller ID:	M07059	**Last Action Dt:**	06/12/2013
Inj Illness:	NoLostDays	**Orig Term Due Tm:**	1100
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	0	**Latest Term Due Dt:**	08/31/2012
Inspection Begin Dt:	08/29/2012	**Cal Yr:**	2012
Negligence:	HighNegligence	**Latest Term Due Tm:**	1100
Inspection End Dt:	09/07/2012	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	09/07/2012
Violation No:	8689480	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	0954

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Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	08/30/2012	**Part Section:**	46.9(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1030	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	11/23/2012	**Docket No:**	
Violation Occur Dt:	08/30/2012	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	10	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	5		

Violation Details

Event No:	1128314	**Amount Paid:**	60
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	02/01/2006
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	09/08/2005
Controller ID:	M07059	**Last Action Dt:**	05/30/2006
Inj Illness:	LostDays	**Orig Term Due Tm:**	1200
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	09/08/2005
Inspection Begin Dt:	09/07/2005	**Cal Yr:**	2005
Negligence:	ModNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	09/08/2005	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	09/08/2005
Violation No:	6380827	**Fiscal Yr:**	2005
Enforcement Area:		**Termination Time:**	0915
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	09/07/2005	**Part Section:**	56.14100(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1130	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	03/16/2006	**Docket No:**	
Violation Occur Dt:	09/07/2005	**Section of Act 2:**	
Proposed Penalty:	60	**Docket Stat Cd:**	
Violator Violation Cnt:	7	**Contested Ind:**	No
Amount Due:	60	**Contested Dt:**	
Violator Insp Day Cnt:	9		

Violation Details

Event No:	1152933	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	05/19/2011
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	04/07/2011
Controller ID:	M07059	**Last Action Dt:**	04/10/2014
Inj Illness:	LostDays	**Orig Term Due Tm:**	1530
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/07/2011
Inspection Begin Dt:	04/06/2011	**Cal Yr:**	2011
Negligence:	ModNegligence	**Latest Term Due Tm:**	1530
Inspection End Dt:	04/19/2011	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/08/2011
Violation No:	8567234	**Fiscal Yr:**	2011

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Enforcement Area:		***Termination Time:***	1447
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/06/2011	***Part Section:***	56.14100(c)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1145	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	06/24/2011	***Docket No:***	
Violation Occur Dt:	04/06/2011	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	2	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1160355	***Amount Paid:***	176
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	09/13/2012
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	07/26/2012
Controller ID:	M07059	***Last Action Dt:***	11/12/2013
Inj Illness:	Permanent	***Orig Term Due Tm:***	1100
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	08/25/2012
Inspection Begin Dt:	07/25/2012	***Cal Yr:***	2012
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	07/26/2012	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	09/07/2012
Violation No:	8607751	***Fiscal Yr:***	2012
Enforcement Area:		***Termination Time:***	0957
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	07/25/2012	***Part Section:***	56.14100(c)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1141	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/20/2012	***Docket No:***	
Violation Occur Dt:	07/25/2012	***Section of Act 2:***	
Proposed Penalty:	176	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	176	***Contested Dt:***	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1122989	***Amount Paid:***	165
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	09/14/2006
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	08/03/2006
Controller ID:	M07059	***Last Action Dt:***	12/11/2006
Inj Illness:	LostDays	***Orig Term Due Tm:***	1300
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	08/03/2006
Inspection Begin Dt:	08/03/2006	***Cal Yr:***	2006
Negligence:	ModNegligence	***Latest Term Due Tm:***	1300
Inspection End Dt:	08/07/2006	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	08/03/2006

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Violation No:	6390265	**Fiscal Yr:**	2006
Enforcement Area:		**Termination Time:**	1230
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	08/03/2006	**Part Section:**	56.9300(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1207	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	10/29/2006	**Docket No:**	
Violation Occur Dt:	08/03/2006	**Section of Act 2:**	
Proposed Penalty:	165	**Docket Stat Cd:**	
Violator Violation Cnt:	10	**Contested Ind:**	No
Amount Due:	165	**Contested Dt:**	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	1119775	**Amount Paid:**	60
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	06/14/2005
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	04/12/2006
Inj Illness:	Fatal	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	03/09/2005
Inspection Begin Dt:	03/08/2005	**Cal Yr:**	2005
Negligence:	ModNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	03/09/2005	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	03/09/2005
Violation No:	6369885	**Fiscal Yr:**	2005
Enforcement Area:		**Termination Time:**	0713
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	03/08/2005	**Vacate Time:**	
Violation Issue Dt:	03/08/2005	**Part Section:**	56.14101(a)(2)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1313	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	07/29/2005	**Docket No:**	
Violation Occur Dt:	03/08/2005	**Section of Act 2:**	
Proposed Penalty:	60	**Docket Stat Cd:**	
Violator Violation Cnt:	7	**Contested Ind:**	No
Amount Due:	60	**Contested Dt:**	
Violator Insp Day Cnt:	11		

Violation Details

Event No:	6595646	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	08/13/2015
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	NoLikelihood	**Orig Term Due Dt:**	06/30/2015
Controller ID:	M07059	**Last Action Dt:**	03/23/2016
Inj Illness:	NoLostDays	**Orig Term Due Tm:**	1200
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	0	**Latest Term Due Dt:**	06/30/2015
Inspection Begin Dt:	06/23/2015	**Cal Yr:**	2015
Negligence:	ModNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	06/30/2015	**Cal Qtr:**	2

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Written Notice:		***Termination Dt:***	07/16/2015
Violation No:	8788314	***Fiscal Yr:***	2015
Enforcement Area:		***Termination Time:***	0838
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Mill	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	06/24/2015	***Part Section:***	50.20(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1315	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/13/2015	***Docket No:***	
Violation Occur Dt:	05/27/2015	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	14	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	1142990	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	10/15/2009
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	09/01/2009
Controller ID:	M07059	***Last Action Dt:***	03/30/2010
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	1530
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	09/01/2009
Inspection Begin Dt:	09/01/2009	***Cal Yr:***	2009
Negligence:	HighNegligence	***Latest Term Due Tm:***	1530
Inspection End Dt:	09/02/2009	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	09/01/2009
Violation No:	7980725	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	1500
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	09/01/2009	***Part Section:***	41.12
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1345	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	11/21/2009	***Docket No:***	
Violation Occur Dt:	09/01/2009	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	2	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1160778	***Amount Paid:***	873
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	05/15/2014
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	04/09/2014
Controller ID:	M07059	***Last Action Dt:***	06/17/2014
Inj Illness:	Fatal	***Orig Term Due Tm:***	1130
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/09/2014
Inspection Begin Dt:	04/09/2014	***Cal Yr:***	2014
Negligence:	HighNegligence	***Latest Term Due Tm:***	1130

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Inspection End Dt:	04/10/2014	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/09/2014
Violation No:	8689939	**Fiscal Yr:**	2014
Enforcement Area:		**Termination Time:**	1130
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/09/2014	**Part Section:**	56.14100(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1055	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	06/21/2014	**Docket No:**	
Violation Occur Dt:	04/09/2014	**Section of Act 2:**	
Proposed Penalty:	873	**Docket Stat Cd:**	
Violator Violation Cnt:	9	**Contested Ind:**	No
Amount Due:	873	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1142990	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	10/15/2009
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	09/11/2009
Controller ID:	M07059	**Last Action Dt:**	10/28/2010
Inj Illness:	LostDays	**Orig Term Due Tm:**	0900
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	09/11/2009
Inspection Begin Dt:	09/01/2009	**Cal Yr:**	2009
Negligence:	HighNegligence	**Latest Term Due Tm:**	0900
Inspection End Dt:	09/02/2009	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	09/17/2009
Violation No:	7980726	**Fiscal Yr:**	2009
Enforcement Area:		**Termination Time:**	1251
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	09/02/2009	**Part Section:**	56.18010
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0656	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	11/21/2009	**Docket No:**	
Violation Occur Dt:	09/02/2009	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	2	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1160778	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	05/15/2014
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	04/09/2014
Controller ID:	M07059	**Last Action Dt:**	06/17/2014
Inj Illness:	LostDays	**Orig Term Due Tm:**	1200
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/09/2014
Inspection Begin Dt:	04/09/2014	**Cal Yr:**	2014

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Negligence:	HighNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	04/10/2014	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/09/2014
Violation No:	8689935	**Fiscal Yr:**	2014
Enforcement Area:		**Termination Time:**	1028
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/09/2014	**Part Section:**	56.4201(a)(2)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0741	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	06/21/2014	**Docket No:**	
Violation Occur Dt:	04/09/2014	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	9	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1142304	**Amount Paid:**	176
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	02/14/2008
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	01/18/2008
Controller ID:	M07059	**Last Action Dt:**	04/22/2009
Inj Illness:	Fatal	**Orig Term Due Tm:**	1000
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	01/18/2008
Inspection Begin Dt:	12/17/2007	**Cal Yr:**	2007
Negligence:	HighNegligence	**Latest Term Due Tm:**	1000
Inspection End Dt:	12/17/2007	**Cal Qtr:**	4
Written Notice:		**Termination Dt:**	01/28/2008
Violation No:	7992987	**Fiscal Yr:**	2008
Enforcement Area:		**Termination Time:**	0702
Violator ID:	L08940	**Fiscal Qtr:**	1
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	12/17/2007	**Part Section:**	56.18010
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0925	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	03/23/2008	**Docket No:**	
Violation Occur Dt:	12/17/2007	**Section of Act 2:**	
Proposed Penalty:	176	**Docket Stat Cd:**	
Violator Violation Cnt:	8	**Contested Ind:**	No
Amount Due:	176	**Contested Dt:**	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1160865	**Amount Paid:**	807
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	06/13/2013
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	04/17/2013
Controller ID:	M07059	**Last Action Dt:**	09/20/2016
Inj Illness:	Permanent	**Orig Term Due Tm:**	1200
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/17/2013

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Inspection Begin Dt:	04/17/2013	**Cal Yr:**	2013
Negligence:	ModNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	04/18/2013	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/17/2013
Violation No:	8689822	**Fiscal Yr:**	2013
Enforcement Area:		**Termination Time:**	1215
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/17/2013	**Part Section:**	56.14112(a)(1)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0936	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	11/25/2014	**Docket No:**	
Violation Occur Dt:	04/17/2013	**Section of Act 2:**	
Proposed Penalty:	807	**Docket Stat Cd:**	
Violator Violation Cnt:	21	**Contested Ind:**	No
Amount Due:	807	**Contested Dt:**	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	0622786	**Amount Paid:**	55
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	10/10/2002
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	11/01/2002
Inj Illness:	LostDays	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	08/16/2002
Inspection Begin Dt:	08/15/2002	**Cal Yr:**	2002
Negligence:	ModNegligence	**Latest Term Due Tm:**	1500
Inspection End Dt:	08/16/2002	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	09/05/2002
Violation No:	6340686	**Fiscal Yr:**	2002
Enforcement Area:		**Termination Time:**	1115
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	08/15/2002	**Vacate Time:**	
Violation Issue Dt:	08/15/2002	**Part Section:**	56.14132(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1555	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	11/01/2002	**Docket No:**	
Violation Occur Dt:	08/15/2002	**Section of Act 2:**	
Proposed Penalty:	55	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	55	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1117267	**Amount Paid:**	60
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	04/06/2004
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	12/13/2004
Inj Illness:	Permanent	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M

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No Affected:	1	**Latest Term Due Dt:**	08/27/2003
Inspection Begin Dt:	08/12/2003	**Cal Yr:**	2003
Negligence:	HighNegligence	**Latest Term Due Tm:**	1500
Inspection End Dt:	08/13/2003	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	02/05/2004
Violation No:	6351642	**Fiscal Yr:**	2003
Enforcement Area:		**Termination Time:**	1312
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	08/13/2003	**Vacate Time:**	
Violation Issue Dt:	08/13/2003	**Part Section:**	62.130(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1330	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	05/13/2004	**Docket No:**	
Violation Occur Dt:	08/13/2003	**Section of Act 2:**	
Proposed Penalty:	60	**Docket Stat Cd:**	
Violator Violation Cnt:	5	**Contested Ind:**	No
Amount Due:	60	**Contested Dt:**	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	6595646	**Amount Paid:**	540
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	08/13/2015
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	06/30/2015
Controller ID:	M07059	**Last Action Dt:**	05/24/2016
Inj Illness:	LostDays	**Orig Term Due Tm:**	0800
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	06/30/2015
Inspection Begin Dt:	06/23/2015	**Cal Yr:**	2015
Negligence:	ModNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	06/30/2015	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	07/16/2015
Violation No:	8788317	**Fiscal Yr:**	2015
Enforcement Area:		**Termination Time:**	0756
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Mill	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	06/29/2015	**Part Section:**	56.11012
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1325	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	10/13/2015	**Docket No:**	
Violation Occur Dt:	06/29/2015	**Section of Act 2:**	
Proposed Penalty:	540	**Docket Stat Cd:**	
Violator Violation Cnt:	14	**Contested Ind:**	No
Amount Due:	540	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1117267	**Amount Paid:**	60
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	02/10/2004
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	03/19/2004
Inj Illness:	LostDays	**Orig Term Due Tm:**	

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Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	08/14/2003
Inspection Begin Dt:	08/12/2003	**Cal Yr:**	2003
Negligence:	ModNegligence	**Latest Term Due Tm:**	1430
Inspection End Dt:	08/13/2003	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	11/05/2003
Violation No:	6351641	**Fiscal Yr:**	2003
Enforcement Area:		**Termination Time:**	1500
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	08/12/2003	**Vacate Time:**	
Violation Issue Dt:	08/12/2003	**Part Section:**	56.14107(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0750	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	04/08/2004	**Docket No:**	
Violation Occur Dt:	08/12/2003	**Section of Act 2:**	
Proposed Penalty:	60	**Docket Stat Cd:**	
Violator Violation Cnt:	5	**Contested Ind:**	No
Amount Due:	60	**Contested Dt:**	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	6595646	**Amount Paid:**	162
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	08/13/2015
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	06/24/2015
Controller ID:	M07059	**Last Action Dt:**	03/23/2016
Inj Illness:	Permanent	**Orig Term Due Tm:**	1110
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	06/24/2015
Inspection Begin Dt:	06/23/2015	**Cal Yr:**	2015
Negligence:	ModNegligence	**Latest Term Due Tm:**	1110
Inspection End Dt:	06/30/2015	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	06/29/2015
Violation No:	8788312	**Fiscal Yr:**	2015
Enforcement Area:		**Termination Time:**	1300
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Mill	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	06/24/2015	**Part Section:**	56.14107(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1046	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	10/13/2015	**Docket No:**	
Violation Occur Dt:	06/24/2015	**Section of Act 2:**	
Proposed Penalty:	162	**Docket Stat Cd:**	
Violator Violation Cnt:	14	**Contested Ind:**	No
Amount Due:	162	**Contested Dt:**	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	1160778	**Amount Paid:**	263
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	05/15/2014
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	04/09/2014
Controller ID:	M07059	**Last Action Dt:**	06/17/2014

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Inj Illness:	LostDays	***Orig Term Due Tm:***	1500
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/18/2014
Inspection Begin Dt:	04/09/2014	***Cal Yr:***	2014
Negligence:	HighNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	04/10/2014	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/29/2014
Violation No:	8689938	***Fiscal Yr:***	2014
Enforcement Area:		***Termination Time:***	1035
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/09/2014	***Part Section:***	56.14100(c)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1051	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	06/21/2014	***Docket No:***	
Violation Occur Dt:	04/09/2014	***Section of Act 2:***	
Proposed Penalty:	263	***Docket Stat Cd:***	
Violator Violation Cnt:	9	***Contested Ind:***	No
Amount Due:	263	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	0630072	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	06/21/2002
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	11/01/2002
Inj Illness:	Permanent	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/23/2002
Inspection Begin Dt:	04/23/2002	***Cal Yr:***	2002
Negligence:	ModNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	04/24/2002	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/23/2002
Violation No:	6339163	***Fiscal Yr:***	2002
Enforcement Area:		***Termination Time:***	1145
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/23/2002	***Vacate Time:***	
Violation Issue Dt:	04/23/2002	***Part Section:***	56.14112(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1142	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/09/2002	***Docket No:***	
Violation Occur Dt:	04/23/2002	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1128314	***Amount Paid:***	60
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	02/01/2006
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	09/08/2005

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Controller ID:	M07059	***Last Action Dt:***	05/30/2006
Inj Illness:	Permanent	***Orig Term Due Tm:***	1200
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	09/08/2005
Inspection Begin Dt:	09/07/2005	***Cal Yr:***	2005
Negligence:	ModNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	09/08/2005	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	09/08/2005
Violation No:	6380825	***Fiscal Yr:***	2005
Enforcement Area:		***Termination Time:***	1035
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	09/07/2005	***Part Section:***	56.14112(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1010	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	03/16/2006	***Docket No:***	
Violation Occur Dt:	09/07/2005	***Section of Act 2:***	
Proposed Penalty:	60	***Docket Stat Cd:***	
Violator Violation Cnt:	7	***Contested Ind:***	No
Amount Due:	60	***Contested Dt:***	
Violator Insp Day Cnt:	9		

Violation Details

Event No:	1147687	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	06/17/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	04/27/2010
Controller ID:	M07059	***Last Action Dt:***	12/14/2010
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	0830
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	04/27/2010
Inspection Begin Dt:	04/27/2010	***Cal Yr:***	2010
Negligence:	HighNegligence	***Latest Term Due Tm:***	0830
Inspection End Dt:	04/27/2010	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/27/2010
Violation No:	6485480	***Fiscal Yr:***	2010
Enforcement Area:		***Termination Time:***	0830
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/27/2010	***Part Section:***	56.1000
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0800	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/24/2010	***Docket No:***	
Violation Occur Dt:	04/27/2010	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	3	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1160852	***Amount Paid:***	807
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	02/14/2013
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid

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Likelihood:	Reasonably	**Orig Term Due Dt:**	01/04/2013
Controller ID:	M07059	**Last Action Dt:**	08/14/2014
Inj Illness:	Permanent	**Orig Term Due Tm:**	1200
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	01/04/2013
Inspection Begin Dt:	01/04/2013	**Cal Yr:**	2013
Negligence:	ModNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	01/08/2013	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	01/07/2013
Violation No:	8689802	**Fiscal Yr:**	2013
Enforcement Area:		**Termination Time:**	1348
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	01/04/2013	**Part Section:**	56.14109(b)(1)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0755	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	03/23/2013	**Docket No:**	
Violation Occur Dt:	01/04/2013	**Section of Act 2:**	
Proposed Penalty:	807	**Docket Stat Cd:**	
Violator Violation Cnt:	18	**Contested Ind:**	No
Amount Due:	807	**Contested Dt:**	
Violator Insp Day Cnt:	6		

Violation Details

Event No:	1142304	**Amount Paid:**	971
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	01/17/2008
Replaced by Ord No:		**Cit Ord Safe:**	Order
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	03/31/2009
Inj Illness:	Fatal	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	
Inspection Begin Dt:	12/17/2007	**Cal Yr:**	2007
Negligence:	HighNegligence	**Latest Term Due Tm:**	
Inspection End Dt:	12/17/2007	**Cal Qtr:**	4
Written Notice:		**Termination Dt:**	12/18/2007
Violation No:	7992986	**Fiscal Yr:**	2008
Enforcement Area:		**Termination Time:**	0736
Violator ID:	L08940	**Fiscal Qtr:**	1
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	12/17/2007	**Part Section:**	46.5(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0915	**Section of Act 1:**	104(g)(1)
Final Ord Issue Dt:	02/28/2008	**Docket No:**	
Violation Occur Dt:	12/17/2007	**Section of Act 2:**	
Proposed Penalty:	971	**Docket Stat Cd:**	
Violator Violation Cnt:	8	**Contested Ind:**	No
Amount Due:	971	**Contested Dt:**	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1133618	**Amount Paid:**	60
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	04/19/2007
Replaced by Ord No:		**Cit Ord Safe:**	Citation

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Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	03/01/2007
Controller ID:	M07059	**Last Action Dt:**	07/02/2007
Inj Illness:	LostDays	**Orig Term Due Tm:**	1015
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	03/01/2007
Inspection Begin Dt:	02/28/2007	**Cal Yr:**	2007
Negligence:	ModNegligence	**Latest Term Due Tm:**	1015
Inspection End Dt:	03/01/2007	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	03/01/2007
Violation No:	6397325	**Fiscal Yr:**	2007
Enforcement Area:		**Termination Time:**	1015
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	03/01/2007	**Part Section:**	56.9300(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0915	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	06/03/2007	**Docket No:**	
Violation Occur Dt:	03/01/2007	**Section of Act 2:**	
Proposed Penalty:	60	**Docket Stat Cd:**	
Violator Violation Cnt:	12	**Contested Ind:**	No
Amount Due:	60	**Contested Dt:**	
Violator Insp Day Cnt:	7		

Violation Details

Event No:	0630072	**Amount Paid:**	66
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	06/21/2002
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	11/01/2002
Inj Illness:	LostDays	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/23/2002
Inspection Begin Dt:	04/23/2002	**Cal Yr:**	2002
Negligence:	ModNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	04/24/2002	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/23/2002
Violation No:	6339164	**Fiscal Yr:**	2002
Enforcement Area:		**Termination Time:**	1155
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	04/23/2002	**Vacate Time:**	
Violation Issue Dt:	04/23/2002	**Part Section:**	56.15003
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1153	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	08/09/2002	**Docket No:**	
Violation Occur Dt:	04/23/2002	**Section of Act 2:**	
Proposed Penalty:	66	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	66	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1160865	**Amount Paid:**	246
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	06/13/2013

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Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	04/17/2013
Controller ID:	M07059	**Last Action Dt:**	10/18/2016
Inj Illness:	Permanent	**Orig Term Due Tm:**	1000
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/17/2013
Inspection Begin Dt:	04/17/2013	**Cal Yr:**	2013
Negligence:	ModNegligence	**Latest Term Due Tm:**	1000
Inspection End Dt:	04/18/2013	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/17/2013
Violation No:	8689824	**Fiscal Yr:**	2013
Enforcement Area:		**Termination Time:**	0958
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/17/2013	**Part Section:**	56.4200(a)(1)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0957	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	11/25/2014	**Docket No:**	
Violation Occur Dt:	04/17/2013	**Section of Act 2:**	
Proposed Penalty:	807	**Docket Stat Cd:**	
Violator Violation Cnt:	21	**Contested Ind:**	No
Amount Due:	246	**Contested Dt:**	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	0630072	**Amount Paid:**	55
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	06/21/2002
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	11/01/2002
Inj Illness:	Permanent	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/24/2002
Inspection Begin Dt:	04/23/2002	**Cal Yr:**	2002
Negligence:	ModNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	04/24/2002	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/24/2002
Violation No:	6339165	**Fiscal Yr:**	2002
Enforcement Area:		**Termination Time:**	0930
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	04/23/2002	**Vacate Time:**	
Violation Issue Dt:	04/23/2002	**Part Section:**	56.9300(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1225	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	08/09/2002	**Docket No:**	
Violation Occur Dt:	04/23/2002	**Section of Act 2:**	
Proposed Penalty:	55	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	55	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	6595659	**Amount Paid:**	1795
Initial Viol No:		**Contractor ID:**	

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Mine Name:	Fab-Tech 18	**Bill Print Dt:**	10/15/2015
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	08/25/2015
Controller ID:	M07059	**Last Action Dt:**	04/09/2018
Inj Illness:	Fatal	**Orig Term Due Tm:**	0900
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	08/26/2015
Inspection Begin Dt:	08/25/2015	**Cal Yr:**	2015
Negligence:	ModNegligence	**Latest Term Due Tm:**	0700
Inspection End Dt:	08/26/2015	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	08/25/2015
Violation No:	8788352	**Fiscal Yr:**	2015
Enforcement Area:		**Termination Time:**	1301
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Mill	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	08/25/2015	**Part Section:**	56.12013(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0840	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	02/23/2016	**Docket No:**	
Violation Occur Dt:	08/25/2015	**Section of Act 2:**	
Proposed Penalty:	1795	**Docket Stat Cd:**	
Violator Violation Cnt:	14	**Contested Ind:**	No
Amount Due:	1795	**Contested Dt:**	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	1160355	**Amount Paid:**	873
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	09/13/2012
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	07/25/2012
Controller ID:	M07059	**Last Action Dt:**	11/12/2013
Inj Illness:	Permanent	**Orig Term Due Tm:**	1050
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	07/25/2012
Inspection Begin Dt:	07/25/2012	**Cal Yr:**	2012
Negligence:	ModNegligence	**Latest Term Due Tm:**	1050
Inspection End Dt:	07/26/2012	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	07/26/2012
Violation No:	8607750	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	1210
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	07/25/2012	**Part Section:**	56.11001
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1046	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	10/20/2012	**Docket No:**	
Violation Occur Dt:	07/25/2012	**Section of Act 2:**	
Proposed Penalty:	873	**Docket Stat Cd:**	
Violator Violation Cnt:	10	**Contested Ind:**	No
Amount Due:	873	**Contested Dt:**	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1147480	**Amount Paid:**	100

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Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	04/15/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	03/03/2010
Controller ID:	M07059	***Last Action Dt:***	01/12/2011
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	1500
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	03/03/2010
Inspection Begin Dt:	03/03/2010	***Cal Yr:***	2010
Negligence:	HighNegligence	***Latest Term Due Tm:***	1500
Inspection End Dt:	03/03/2010	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	03/03/2010
Violation No:	8555044	***Fiscal Yr:***	2010
Enforcement Area:		***Termination Time:***	1100
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	03/03/2010	***Part Section:***	56.1000
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0915	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	05/21/2010	***Docket No:***	
Violation Occur Dt:	03/03/2010	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	4	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1160628	***Amount Paid:***	392
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	01/17/2013
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	08/30/2012
Controller ID:	M07059	***Last Action Dt:***	08/14/2014
Inj Illness:	LostDays	***Orig Term Due Tm:***	0800
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	08/30/2012
Inspection Begin Dt:	08/29/2012	***Cal Yr:***	2012
Negligence:	HighNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	09/07/2012	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	08/30/2012
Violation No:	8689478	***Fiscal Yr:***	2012
Enforcement Area:		***Termination Time:***	0947
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	Yes	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	08/29/2012	***Part Section:***	56.14100(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1135	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	02/23/2013	***Docket No:***	
Violation Occur Dt:	08/29/2012	***Section of Act 2:***	
Proposed Penalty:	392	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	392	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

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Event No:	6595646	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	08/13/2015
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	06/30/2015
Controller ID:	M07059	***Last Action Dt:***	03/23/2016
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	06/30/2015
Inspection Begin Dt:	06/23/2015	***Cal Yr:***	2015
Negligence:	ModNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	06/30/2015	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	06/30/2015
Violation No:	8788318	***Fiscal Yr:***	2015
Enforcement Area:		***Termination Time:***	0907
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Mill	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	06/29/2015	***Part Section:***	56.18002(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1425	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/13/2015	***Docket No:***	
Violation Occur Dt:	06/29/2015	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	14	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1119775	***Amount Paid:***	60
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	06/14/2005
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	04/12/2006
Inj Illness:	Fatal	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	03/09/2005
Inspection Begin Dt:	03/08/2005	***Cal Yr:***	2005
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	03/09/2005	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	03/09/2005
Violation No:	6369883	***Fiscal Yr:***	2005
Enforcement Area:		***Termination Time:***	0720
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	03/08/2005	***Vacate Time:***	
Violation Issue Dt:	03/08/2005	***Part Section:***	56.14101(a)(2)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1250	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/29/2005	***Docket No:***	
Violation Occur Dt:	03/08/2005	***Section of Act 2:***	
Proposed Penalty:	60	***Docket Stat Cd:***	
Violator Violation Cnt:	7	***Contested Ind:***	No
Amount Due:	60	***Contested Dt:***	
Violator Insp Day Cnt:	11		

Violation Details

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Event No:	1160852	***Amount Paid:***	540
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	02/14/2013
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	01/04/2013
Controller ID:	M07059	***Last Action Dt:***	09/18/2014
Inj Illness:	LostDays	***Orig Term Due Tm:***	1000
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	01/04/2013
Inspection Begin Dt:	01/04/2013	***Cal Yr:***	2013
Negligence:	ModNegligence	***Latest Term Due Tm:***	1000
Inspection End Dt:	01/08/2013	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	01/04/2013
Violation No:	8689801	***Fiscal Yr:***	2013
Enforcement Area:		***Termination Time:***	0810
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	01/04/2013	***Part Section:***	56.9300(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0735	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	03/23/2013	***Docket No:***	
Violation Occur Dt:	01/04/2013	***Section of Act 2:***	
Proposed Penalty:	540	***Docket Stat Cd:***	
Violator Violation Cnt:	18	***Contested Ind:***	No
Amount Due:	540	***Contested Dt:***	
Violator Insp Day Cnt:	6		

Violation Details

Event No:	6595646	***Amount Paid:***	1203
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	08/13/2015
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	06/28/2015
Controller ID:	M07059	***Last Action Dt:***	05/24/2016
Inj Illness:	Fatal	***Orig Term Due Tm:***	0800
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	06/28/2015
Inspection Begin Dt:	06/23/2015	***Cal Yr:***	2015
Negligence:	HighNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	06/30/2015	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	06/30/2015
Violation No:	8788315	***Fiscal Yr:***	2015
Enforcement Area:		***Termination Time:***	1040
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Mill	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	06/24/2015	***Part Section:***	56.12029
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1345	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/13/2015	***Docket No:***	
Violation Occur Dt:	05/01/2015	***Section of Act 2:***	
Proposed Penalty:	1203	***Docket Stat Cd:***	
Violator Violation Cnt:	14	***Contested Ind:***	No
Amount Due:	1203	***Contested Dt:***	
Violator Insp Day Cnt:	3		

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Violation Details

Event No:	1119389	***Amount Paid:***	60
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	09/14/2004
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	12/13/2004
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	05/19/2004
Inspection Begin Dt:	05/19/2004	***Cal Yr:***	2004
Negligence:	ModNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	05/19/2004	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	05/19/2004
Violation No:	6361715	***Fiscal Yr:***	2004
Enforcement Area:		***Termination Time:***	0930
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	05/19/2004	***Vacate Time:***	
Violation Issue Dt:	05/19/2004	***Part Section:***	56.14100(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0845	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/29/2004	***Docket No:***	
Violation Occur Dt:	05/19/2004	***Section of Act 2:***	
Proposed Penalty:	60	***Docket Stat Cd:***	
Violator Violation Cnt:	8	***Contested Ind:***	No
Amount Due:	60	***Contested Dt:***	
Violator Insp Day Cnt:	12		

Violation Details

Event No:	1160355	***Amount Paid:***	117
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	09/13/2012
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	07/26/2012
Controller ID:	M07059	***Last Action Dt:***	07/15/2013
Inj Illness:	LostDays	***Orig Term Due Tm:***	1100
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	07/26/2012
Inspection Begin Dt:	07/25/2012	***Cal Yr:***	2012
Negligence:	ModNegligence	***Latest Term Due Tm:***	1100
Inspection End Dt:	07/26/2012	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	07/26/2012
Violation No:	8607752	***Fiscal Yr:***	2012
Enforcement Area:		***Termination Time:***	1225
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	07/25/2012	***Part Section:***	56.14100(c)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1157	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/20/2012	***Docket No:***	
Violation Occur Dt:	07/25/2012	***Section of Act 2:***	
Proposed Penalty:	117	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	117	***Contested Dt:***	
Violator Insp Day Cnt:	2		

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Violation Details

Event No:	1160628	***Amount Paid:***	1500
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	02/14/2013
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	08/31/2012
Controller ID:	M07059	***Last Action Dt:***	05/21/2014
Inj Illness:	Permanent	***Orig Term Due Tm:***	1100
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	08/31/2012
Inspection Begin Dt:	08/29/2012	***Cal Yr:***	2012
Negligence:	ModNegligence	***Latest Term Due Tm:***	1100
Inspection End Dt:	09/07/2012	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	09/07/2012
Violation No:	8689481	***Fiscal Yr:***	2012
Enforcement Area:		***Termination Time:***	1214
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	Yes	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	08/30/2012	***Part Section:***	56.14100(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1130	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	06/02/2014	***Docket No:***	
Violation Occur Dt:	08/30/2012	***Section of Act 2:***	
Proposed Penalty:	5080	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	1500	***Contested Dt:***	
Violator Insp Day Cnt:	5		

Violation Details

Event No:	1119337	***Amount Paid:***	324
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	12/09/2003
Replaced by Ord No:		***Cit Ord Safe:***	Order
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	02/28/2004
Inj Illness:	Fatal	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	
Inspection Begin Dt:	11/05/2003	***Cal Yr:***	2003
Negligence:	HighNegligence	***Latest Term Due Tm:***	
Inspection End Dt:	11/05/2003	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	11/06/2003
Violation No:	6354144	***Fiscal Yr:***	2004
Enforcement Area:		***Termination Time:***	1728
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	11/05/2003	***Vacate Time:***	
Violation Issue Dt:	11/05/2003	***Part Section:***	46.5(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0830	***Section of Act 1:***	104(g)(1)
Final Ord Issue Dt:	02/12/2004	***Docket No:***	
Violation Occur Dt:	11/05/2003	***Section of Act 2:***	
Proposed Penalty:	324	***Docket Stat Cd:***	
Violator Violation Cnt:	5	***Contested Ind:***	No
Amount Due:	324	***Contested Dt:***	

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Violator Insp Day Cnt: 9

Violation Details

Event No:	6595872	***Amount Paid:***	162
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	11/19/2015
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	10/15/2015
Controller ID:	M07059	***Last Action Dt:***	12/22/2015
Inj Illness:	Permanent	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	10/15/2015
Inspection Begin Dt:	10/14/2015	***Cal Yr:***	2015
Negligence:	ModNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	10/15/2015	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	10/15/2015
Violation No:	8788704	***Fiscal Yr:***	2016
Enforcement Area:		***Termination Time:***	1006
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/14/2015	***Part Section:***	56.14107(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0925	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	12/23/2015	***Docket No:***	
Violation Occur Dt:	10/14/2015	***Section of Act 2:***	
Proposed Penalty:	162	***Docket Stat Cd:***	
Violator Violation Cnt:	16	***Contested Ind:***	No
Amount Due:	162	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1160628	***Amount Paid:***	1304
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	01/17/2013
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	08/29/2012
Controller ID:	M07059	***Last Action Dt:***	08/12/2014
Inj Illness:	Fatal	***Orig Term Due Tm:***	1400
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	08/29/2012
Inspection Begin Dt:	08/29/2012	***Cal Yr:***	2012
Negligence:	HighNegligence	***Latest Term Due Tm:***	1400
Inspection End Dt:	09/07/2012	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	08/30/2012
Violation No:	8689477	***Fiscal Yr:***	2012
Enforcement Area:		***Termination Time:***	0946
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	Yes	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	08/29/2012	***Part Section:***	56.14101(a)(3)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1130	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	02/23/2013	***Docket No:***	
Violation Occur Dt:	08/29/2012	***Section of Act 2:***	
Proposed Penalty:	1304	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No

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Amount Due:	1304	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1142087	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	11/13/2008
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	09/05/2008
Controller ID:	M07059	***Last Action Dt:***	02/24/2010
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	09/05/2008
Inspection Begin Dt:	08/13/2008	***Cal Yr:***	2008
Negligence:	HighNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	08/13/2008	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	09/05/2008
Violation No:	6440040	***Fiscal Yr:***	2008
Enforcement Area:		***Termination Time:***	0830
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	09/05/2008	***Part Section:***	50.30(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0810	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	12/20/2008	***Docket No:***	
Violation Occur Dt:	04/16/2008	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	6	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1160865	***Amount Paid:***	807
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	06/13/2013
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	04/17/2013
Controller ID:	M07059	***Last Action Dt:***	08/16/2016
Inj Illness:	Permanent	***Orig Term Due Tm:***	1200
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/17/2013
Inspection Begin Dt:	04/17/2013	***Cal Yr:***	2013
Negligence:	ModNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	04/18/2013	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/17/2013
Violation No:	8689820	***Fiscal Yr:***	2013
Enforcement Area:		***Termination Time:***	1005
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/17/2013	***Part Section:***	56.11004
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0715	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	11/25/2014	***Docket No:***	
Violation Occur Dt:	04/17/2013	***Section of Act 2:***	
Proposed Penalty:	807	***Docket Stat Cd:***	

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Violator Violation Cnt:	21	***Contested Ind:***	No
Amount Due:	807	***Contested Dt:***	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	1160865	***Amount Paid:***	540
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	06/13/2013
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	04/18/2013
Controller ID:	M07059	***Last Action Dt:***	10/18/2016
Inj Illness:	LostDays	***Orig Term Due Tm:***	0800
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/18/2013
Inspection Begin Dt:	04/17/2013	***Cal Yr:***	2013
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	04/18/2013	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/18/2013
Violation No:	8689823	***Fiscal Yr:***	2013
Enforcement Area:		***Termination Time:***	0848
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/17/2013	***Part Section:***	56.4101
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0950	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	11/25/2014	***Docket No:***	
Violation Occur Dt:	04/17/2013	***Section of Act 2:***	
Proposed Penalty:	540	***Docket Stat Cd:***	
Violator Violation Cnt:	21	***Contested Ind:***	No
Amount Due:	540	***Contested Dt:***	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	1160899	***Amount Paid:***	807
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	11/14/2013
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	09/18/2013
Controller ID:	M07059	***Last Action Dt:***	12/26/2013
Inj Illness:	Permanent	***Orig Term Due Tm:***	1200
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	09/18/2013
Inspection Begin Dt:	09/18/2013	***Cal Yr:***	2013
Negligence:	ModNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	10/17/2013	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	09/18/2013
Violation No:	8689875	***Fiscal Yr:***	2013
Enforcement Area:		***Termination Time:***	0800
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	09/18/2013	***Part Section:***	56.14100(c)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0756	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	12/22/2013	***Docket No:***	
Violation Occur Dt:	09/18/2013	***Section of Act 2:***	

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Proposed Penalty:	807	**Docket Stat Cd:**	
Violator Violation Cnt:	17	**Contested Ind:**	No
Amount Due:	807	**Contested Dt:**	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	6595872	**Amount Paid:**	807
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	11/19/2015
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	10/15/2015
Controller ID:	M07059	**Last Action Dt:**	12/22/2015
Inj Illness:	Permanent	**Orig Term Due Tm:**	0900
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	10/15/2015
Inspection Begin Dt:	10/14/2015	**Cal Yr:**	2015
Negligence:	ModNegligence	**Latest Term Due Tm:**	0900
Inspection End Dt:	10/15/2015	**Cal Qtr:**	4
Written Notice:		**Termination Dt:**	10/15/2015
Violation No:	8788705	**Fiscal Yr:**	2016
Enforcement Area:		**Termination Time:**	1008
Violator ID:	L08940	**Fiscal Qtr:**	1
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	10/14/2015	**Part Section:**	56.14107(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1009	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	12/23/2015	**Docket No:**	
Violation Occur Dt:	10/14/2015	**Section of Act 2:**	
Proposed Penalty:	807	**Docket Stat Cd:**	
Violator Violation Cnt:	16	**Contested Ind:**	No
Amount Due:	807	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1160325	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	04/19/2012
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	NoLikelihood	**Orig Term Due Dt:**	03/13/2012
Controller ID:	M07059	**Last Action Dt:**	01/11/2013
Inj Illness:	NoLostDays	**Orig Term Due Tm:**	1600
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	0	**Latest Term Due Dt:**	03/13/2012
Inspection Begin Dt:	03/13/2012	**Cal Yr:**	2012
Negligence:	HighNegligence	**Latest Term Due Tm:**	1600
Inspection End Dt:	03/13/2012	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	03/14/2012
Violation No:	8607682	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	0800
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	03/13/2012	**Part Section:**	50.30(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1555	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	05/25/2012	**Docket No:**	

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Violation Occur Dt:	03/13/2012	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	6	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	6595646	***Amount Paid:***	807
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	08/13/2015
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	06/24/2015
Controller ID:	M07059	***Last Action Dt:***	05/05/2016
Inj Illness:	Permanent	***Orig Term Due Tm:***	1045
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	07/01/2015
Inspection Begin Dt:	06/23/2015	***Cal Yr:***	2015
Negligence:	ModNegligence	***Latest Term Due Tm:***	1630
Inspection End Dt:	06/30/2015	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	07/16/2015
Violation No:	8788310	***Fiscal Yr:***	2015
Enforcement Area:		***Termination Time:***	0826
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Mill	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	06/24/2015	***Part Section:***	56.14107(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1027	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/13/2015	***Docket No:***	
Violation Occur Dt:	06/24/2015	***Section of Act 2:***	
Proposed Penalty:	807	***Docket Stat Cd:***	
Violator Violation Cnt:	14	***Contested Ind:***	No
Amount Due:	807	***Contested Dt:***	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	1152933	***Amount Paid:***	807
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	02/16/2012
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	04/07/2011
Controller ID:	M07059	***Last Action Dt:***	01/11/2013
Inj Illness:	Fatal	***Orig Term Due Tm:***	1530
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/07/2011
Inspection Begin Dt:	04/06/2011	***Cal Yr:***	2011
Negligence:	HighNegligence	***Latest Term Due Tm:***	1530
Inspection End Dt:	04/19/2011	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/08/2011
Violation No:	8567233	***Fiscal Yr:***	2011
Enforcement Area:		***Termination Time:***	1446
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	Yes	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/06/2011	***Part Section:***	56.14105
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1130	***Section of Act 1:***	104(a)

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Final Ord Issue Dt:	03/24/2012	***Docket No:***	
Violation Occur Dt:	04/06/2011	***Section of Act 2:***	
Proposed Penalty:	807	***Docket Stat Cd:***	
Violator Violation Cnt:	2	***Contested Ind:***	No
Amount Due:	807	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1122989	***Amount Paid:***	228
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	09/14/2006
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	08/07/2006
Controller ID:	M07059	***Last Action Dt:***	12/11/2006
Inj Illness:	LostDays	***Orig Term Due Tm:***	1200
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	08/07/2006
Inspection Begin Dt:	08/03/2006	***Cal Yr:***	2006
Negligence:	HighNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	08/07/2006	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	08/07/2006
Violation No:	6390266	***Fiscal Yr:***	2006
Enforcement Area:		***Termination Time:***	1042
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	08/03/2006	***Part Section:***	56.14100(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1245	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/29/2006	***Docket No:***	
Violation Occur Dt:	08/03/2006	***Section of Act 2:***	
Proposed Penalty:	228	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	228	***Contested Dt:***	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	1119389	***Amount Paid:***	135
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	09/14/2004
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	12/13/2004
Inj Illness:	Permanent	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	05/19/2004
Inspection Begin Dt:	05/19/2004	***Cal Yr:***	2004
Negligence:	ModNegligence	***Latest Term Due Tm:***	1100
Inspection End Dt:	05/19/2004	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	05/19/2004
Violation No:	6361717	***Fiscal Yr:***	2004
Enforcement Area:		***Termination Time:***	1100
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	05/19/2004	***Vacate Time:***	
Violation Issue Dt:	05/19/2004	***Part Section:***	56.14107(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed

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Violation Issue Time:	0950	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	10/29/2004	**Docket No:**	
Violation Occur Dt:	05/19/2004	**Section of Act 2:**	
Proposed Penalty:	135	**Docket Stat Cd:**	
Violator Violation Cnt:	8	**Contested Ind:**	No
Amount Due:	135	**Contested Dt:**	
Violator Insp Day Cnt:	12		

Violation Details

Event No:	1152933	**Amount Paid:**	2000
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	05/19/2011
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	04/07/2011
Controller ID:	M07059	**Last Action Dt:**	01/23/2014
Inj Illness:	Fatal	**Orig Term Due Tm:**	1530
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/07/2011
Inspection Begin Dt:	04/06/2011	**Cal Yr:**	2011
Negligence:	HighNegligence	**Latest Term Due Tm:**	1530
Inspection End Dt:	04/19/2011	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/08/2011
Violation No:	8567231	**Fiscal Yr:**	2011
Enforcement Area:		**Termination Time:**	1440
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/06/2011	**Part Section:**	56.14100(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1045	**Section of Act 1:**	104(d)(1)
Final Ord Issue Dt:	06/24/2011	**Docket No:**	
Violation Occur Dt:	04/06/2011	**Section of Act 2:**	
Proposed Penalty:	2000	**Docket Stat Cd:**	
Violator Violation Cnt:	2	**Contested Ind:**	No
Amount Due:	2000	**Contested Dt:**	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	6595659	**Amount Paid:**	162
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	10/15/2015
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	08/25/2015
Controller ID:	M07059	**Last Action Dt:**	04/22/2016
Inj Illness:	Permanent	**Orig Term Due Tm:**	1030
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	08/26/2015
Inspection Begin Dt:	08/25/2015	**Cal Yr:**	2015
Negligence:	ModNegligence	**Latest Term Due Tm:**	0705
Inspection End Dt:	08/26/2015	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	08/26/2015
Violation No:	8788354	**Fiscal Yr:**	2015
Enforcement Area:		**Termination Time:**	1147
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Mill	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	08/25/2015	**Part Section:**	56.14107(a)

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Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1019	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	11/18/2015	**Docket No:**	
Violation Occur Dt:	08/25/2015	**Section of Act 2:**	
Proposed Penalty:	162	**Docket Stat Cd:**	
Violator Violation Cnt:	14	**Contested Ind:**	No
Amount Due:	162	**Contested Dt:**	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	1160899	**Amount Paid:**	162
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	11/14/2013
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	09/18/2013
Controller ID:	M07059	**Last Action Dt:**	12/26/2013
Inj Illness:	Permanent	**Orig Term Due Tm:**	0830
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	09/18/2013
Inspection Begin Dt:	09/18/2013	**Cal Yr:**	2013
Negligence:	ModNegligence	**Latest Term Due Tm:**	0830
Inspection End Dt:	10/17/2013	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	09/18/2013
Violation No:	8689876	**Fiscal Yr:**	2013
Enforcement Area:		**Termination Time:**	0819
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	09/18/2013	**Part Section:**	56.14100(c)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0815	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	12/22/2013	**Docket No:**	
Violation Occur Dt:	09/18/2013	**Section of Act 2:**	
Proposed Penalty:	162	**Docket Stat Cd:**	
Violator Violation Cnt:	17	**Contested Ind:**	No
Amount Due:	162	**Contested Dt:**	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	1128314	**Amount Paid:**	60
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	02/01/2006
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	09/08/2005
Controller ID:	M07059	**Last Action Dt:**	05/30/2006
Inj Illness:	Fatal	**Orig Term Due Tm:**	1200
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	09/08/2005
Inspection Begin Dt:	09/07/2005	**Cal Yr:**	2005
Negligence:	ModNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	09/08/2005	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	09/08/2005
Violation No:	6380828	**Fiscal Yr:**	2005
Enforcement Area:		**Termination Time:**	0917
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	

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Violation Issue Dt:	09/07/2005	**Part Section:**	56.14101(a)(2)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1135	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	03/16/2006	**Docket No:**	
Violation Occur Dt:	09/07/2005	**Section of Act 2:**	
Proposed Penalty:	60	**Docket Stat Cd:**	
Violator Violation Cnt:	7	**Contested Ind:**	No
Amount Due:	60	**Contested Dt:**	
Violator Insp Day Cnt:	9		

Violation Details

Event No:	1160778	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	05/15/2014
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	04/09/2014
Controller ID:	M07059	**Last Action Dt:**	06/17/2014
Inj Illness:	LostDays	**Orig Term Due Tm:**	1200
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/09/2014
Inspection Begin Dt:	04/09/2014	**Cal Yr:**	2014
Negligence:	LowNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	04/10/2014	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/09/2014
Violation No:	8689936	**Fiscal Yr:**	2014
Enforcement Area:		**Termination Time:**	0836
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/09/2014	**Part Section:**	56.12004
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0800	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	06/21/2014	**Docket No:**	
Violation Occur Dt:	04/09/2014	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	9	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1142990	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	10/15/2009
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	NoLikelihood	**Orig Term Due Dt:**	09/04/2009
Controller ID:	M07059	**Last Action Dt:**	03/08/2010
Inj Illness:	NoLostDays	**Orig Term Due Tm:**	0900
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	0	**Latest Term Due Dt:**	09/04/2009
Inspection Begin Dt:	09/01/2009	**Cal Yr:**	2009
Negligence:	HighNegligence	**Latest Term Due Tm:**	0900
Inspection End Dt:	09/02/2009	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	09/03/2009
Violation No:	7980724	**Fiscal Yr:**	2009
Enforcement Area:		**Termination Time:**	1324
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	

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Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	09/01/2009	***Part Section:***	50.30(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1340	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	11/21/2009	***Docket No:***	
Violation Occur Dt:	07/16/2009	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	2	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1133618	***Amount Paid:***	60
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	04/19/2007
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	03/01/2007
Controller ID:	M07059	***Last Action Dt:***	07/02/2007
Inj Illness:	Fatal	***Orig Term Due Tm:***	0800
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	03/01/2007
Inspection Begin Dt:	02/28/2007	***Cal Yr:***	2007
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	03/01/2007	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	03/01/2007
Violation No:	6397324	***Fiscal Yr:***	2007
Enforcement Area:		***Termination Time:***	0900
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	02/28/2007	***Part Section:***	56.14112(a)(1)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1415	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	06/03/2007	***Docket No:***	
Violation Occur Dt:	02/28/2007	***Section of Act 2:***	
Proposed Penalty:	60	***Docket Stat Cd:***	
Violator Violation Cnt:	7	***Contested Ind:***	No
Amount Due:	60	***Contested Dt:***	
Violator Insp Day Cnt:	5		

Violation Details

Event No:	1160325	***Amount Paid:***	392
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	04/19/2012
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	03/13/2012
Controller ID:	M07059	***Last Action Dt:***	01/11/2013
Inj Illness:	Permanent	***Orig Term Due Tm:***	1445
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	03/13/2012
Inspection Begin Dt:	03/13/2012	***Cal Yr:***	2012
Negligence:	HighNegligence	***Latest Term Due Tm:***	1445
Inspection End Dt:	03/13/2012	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	03/15/2012
Violation No:	8607680	***Fiscal Yr:***	2012
Enforcement Area:		***Termination Time:***	1945
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	

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Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	03/13/2012	**Part Section:**	56.14107(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1438	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	05/25/2012	**Docket No:**	
Violation Occur Dt:	03/13/2012	**Section of Act 2:**	
Proposed Penalty:	392	**Docket Stat Cd:**	
Violator Violation Cnt:	6	**Contested Ind:**	No
Amount Due:	392	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1160628	**Amount Paid:**	392
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	10/18/2012
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	08/31/2012
Controller ID:	M07059	**Last Action Dt:**	09/17/2013
Inj Illness:	Fatal	**Orig Term Due Tm:**	1100
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	08/31/2012
Inspection Begin Dt:	08/29/2012	**Cal Yr:**	2012
Negligence:	ModNegligence	**Latest Term Due Tm:**	1100
Inspection End Dt:	09/07/2012	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	09/07/2012
Violation No:	8689479	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	0949
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	08/29/2012	**Part Section:**	56.14131(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1138	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	11/23/2012	**Docket No:**	
Violation Occur Dt:	08/29/2012	**Section of Act 2:**	
Proposed Penalty:	392	**Docket Stat Cd:**	
Violator Violation Cnt:	10	**Contested Ind:**	No
Amount Due:	392	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	6595646	**Amount Paid:**	162
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	08/13/2015
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	06/24/2015
Controller ID:	M07059	**Last Action Dt:**	03/23/2016
Inj Illness:	Permanent	**Orig Term Due Tm:**	1050
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	06/24/2015
Inspection Begin Dt:	06/23/2015	**Cal Yr:**	2015
Negligence:	ModNegligence	**Latest Term Due Tm:**	1050
Inspection End Dt:	06/30/2015	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	06/24/2015
Violation No:	8788311	**Fiscal Yr:**	2015
Enforcement Area:		**Termination Time:**	1050
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No

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Primary or Mill:	Mill	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	06/24/2015	**Part Section:**	56.12008
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1035	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	10/13/2015	**Docket No:**	
Violation Occur Dt:	06/24/2015	**Section of Act 2:**	
Proposed Penalty:	162	**Docket Stat Cd:**	
Violator Violation Cnt:	14	**Contested Ind:**	No
Amount Due:	162	**Contested Dt:**	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	1160899	**Amount Paid:**	162
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	11/14/2013
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	09/19/2013
Controller ID:	M07059	**Last Action Dt:**	12/26/2013
Inj Illness:	Permanent	**Orig Term Due Tm:**	1200
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	09/19/2013
Inspection Begin Dt:	09/18/2013	**Cal Yr:**	2013
Negligence:	ModNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	10/17/2013	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	09/19/2013
Violation No:	8689874	**Fiscal Yr:**	2013
Enforcement Area:		**Termination Time:**	1040
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	09/18/2013	**Part Section:**	56.14100(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0707	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	12/22/2013	**Docket No:**	
Violation Occur Dt:	09/18/2013	**Section of Act 2:**	
Proposed Penalty:	162	**Docket Stat Cd:**	
Violator Violation Cnt:	17	**Contested Ind:**	No
Amount Due:	162	**Contested Dt:**	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	6595872	**Amount Paid:**	362
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	11/19/2015
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	10/15/2015
Controller ID:	M07059	**Last Action Dt:**	12/22/2015
Inj Illness:	Fatal	**Orig Term Due Tm:**	0900
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	10/15/2015
Inspection Begin Dt:	10/14/2015	**Cal Yr:**	2015
Negligence:	ModNegligence	**Latest Term Due Tm:**	0900
Inspection End Dt:	10/15/2015	**Cal Qtr:**	4
Written Notice:		**Termination Dt:**	10/15/2015
Violation No:	8788706	**Fiscal Yr:**	2016
Enforcement Area:		**Termination Time:**	1009
Violator ID:	L08940	**Fiscal Qtr:**	1
Special Assess:	No	**Termination Type:**	Terminated

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Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/14/2015	***Part Section:***	56.14107(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1047	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	12/23/2015	***Docket No:***	
Violation Occur Dt:	10/14/2015	***Section of Act 2:***	
Proposed Penalty:	362	***Docket Stat Cd:***	
Violator Violation Cnt:	16	***Contested Ind:***	No
Amount Due:	362	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1133618	***Amount Paid:***	60
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	04/19/2007
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	03/01/2007
Controller ID:	M07059	***Last Action Dt:***	07/02/2007
Inj Illness:	Fatal	***Orig Term Due Tm:***	0800
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	03/01/2007
Inspection Begin Dt:	02/28/2007	***Cal Yr:***	2007
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	03/01/2007	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	03/01/2007
Violation No:	6397323	***Fiscal Yr:***	2007
Enforcement Area:		***Termination Time:***	0915
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	02/28/2007	***Part Section:***	56.14112(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1400	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	06/03/2007	***Docket No:***	
Violation Occur Dt:	02/28/2007	***Section of Act 2:***	
Proposed Penalty:	60	***Docket Stat Cd:***	
Violator Violation Cnt:	7	***Contested Ind:***	No
Amount Due:	60	***Contested Dt:***	
Violator Insp Day Cnt:	5		

Violation Details

Event No:	1160778	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	05/15/2014
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	04/09/2014
Controller ID:	M07059	***Last Action Dt:***	06/17/2014
Inj Illness:	LostDays	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/09/2014
Inspection Begin Dt:	04/09/2014	***Cal Yr:***	2014
Negligence:	ModNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	04/10/2014	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/09/2014
Violation No:	8689937	***Fiscal Yr:***	2014
Enforcement Area:		***Termination Time:***	1046
Violator ID:	L08940	***Fiscal Qtr:***	3

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Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/09/2014	**Part Section:**	56.11002
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0811	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	06/21/2014	**Docket No:**	
Violation Occur Dt:	04/09/2014	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	9	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1152933	**Amount Paid:**	2000
Initial Viol No:	8567231	**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	05/19/2011
Replaced by Ord No:		**Cit Ord Safe:**	Order
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	04/10/2014
Inj Illness:	Fatal	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	
Inspection Begin Dt:	04/06/2011	**Cal Yr:**	2011
Negligence:	HighNegligence	**Latest Term Due Tm:**	
Inspection End Dt:	04/19/2011	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/08/2011
Violation No:	8567232	**Fiscal Yr:**	2011
Enforcement Area:		**Termination Time:**	1442
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/06/2011	**Part Section:**	56.14100(c)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1100	**Section of Act 1:**	104(d)(1)
Final Ord Issue Dt:	06/24/2011	**Docket No:**	
Violation Occur Dt:	04/06/2011	**Section of Act 2:**	
Proposed Penalty:	2000	**Docket Stat Cd:**	
Violator Violation Cnt:	2	**Contested Ind:**	No
Amount Due:	2000	**Contested Dt:**	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1160627	**Amount Paid:**	1944
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	10/18/2012
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	09/29/2012
Controller ID:	M07059	**Last Action Dt:**	09/17/2013
Inj Illness:	LostDays	**Orig Term Due Tm:**	1200
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	09/29/2012
Inspection Begin Dt:	08/29/2012	**Cal Yr:**	2012
Negligence:	HighNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	09/07/2012	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	09/07/2012
Violation No:	8689476	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	0928

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Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	08/29/2012	**Part Section:**	56.14100(c)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1124	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	11/23/2012	**Docket No:**	
Violation Occur Dt:	08/29/2012	**Section of Act 2:**	
Proposed Penalty:	1944	**Docket Stat Cd:**	
Violator Violation Cnt:	10	**Contested Ind:**	No
Amount Due:	1944	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1122989	**Amount Paid:**	60
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	09/14/2006
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	08/04/2006
Controller ID:	M07059	**Last Action Dt:**	12/11/2006
Inj Illness:	LostDays	**Orig Term Due Tm:**	1200
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	08/04/2006
Inspection Begin Dt:	08/03/2006	**Cal Yr:**	2006
Negligence:	ModNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	08/07/2006	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	08/07/2006
Violation No:	6390267	**Fiscal Yr:**	2006
Enforcement Area:		**Termination Time:**	1040
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	08/03/2006	**Part Section:**	56.4104(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1256	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	10/29/2006	**Docket No:**	
Violation Occur Dt:	08/03/2006	**Section of Act 2:**	
Proposed Penalty:	60	**Docket Stat Cd:**	
Violator Violation Cnt:	10	**Contested Ind:**	No
Amount Due:	60	**Contested Dt:**	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	1152933	**Amount Paid:**	807
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	09/15/2011
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	04/11/2011
Controller ID:	M07059	**Last Action Dt:**	08/12/2014
Inj Illness:	Fatal	**Orig Term Due Tm:**	1050
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/11/2011
Inspection Begin Dt:	04/06/2011	**Cal Yr:**	2011
Negligence:	HighNegligence	**Latest Term Due Tm:**	1050
Inspection End Dt:	04/19/2011	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/11/2011
Violation No:	8567237	**Fiscal Yr:**	2011

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Enforcement Area:		***Termination Time:***	1050
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/11/2011	***Part Section:***	46.5(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1045	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/22/2011	***Docket No:***	
Violation Occur Dt:	04/11/2011	***Section of Act 2:***	
Proposed Penalty:	807	***Docket Stat Cd:***	
Violator Violation Cnt:	2	***Contested Ind:***	No
Amount Due:	807	***Contested Dt:***	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	1160355	***Amount Paid:***	873
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	09/13/2012
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	07/25/2012
Controller ID:	M07059	***Last Action Dt:***	09/17/2013
Inj Illness:	Permanent	***Orig Term Due Tm:***	1030
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	07/25/2012
Inspection Begin Dt:	07/25/2012	***Cal Yr:***	2012
Negligence:	ModNegligence	***Latest Term Due Tm:***	1030
Inspection End Dt:	07/26/2012	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	07/25/2012
Violation No:	8607749	***Fiscal Yr:***	2012
Enforcement Area:		***Termination Time:***	1440
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	07/25/2012	***Part Section:***	56.14112(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1027	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/20/2012	***Docket No:***	
Violation Occur Dt:	07/25/2012	***Section of Act 2:***	
Proposed Penalty:	873	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	873	***Contested Dt:***	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1122989	***Amount Paid:***	60
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	09/14/2006
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	08/07/2006
Controller ID:	M07059	***Last Action Dt:***	12/11/2006
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	1200
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	08/07/2006
Inspection Begin Dt:	08/03/2006	***Cal Yr:***	2006
Negligence:	LowNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	08/07/2006	***Cal Qtr:***	3
Written Notice:		***Termination Dt:***	08/07/2006

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Violation No:	6390264	**Fiscal Yr:**	2006
Enforcement Area:		**Termination Time:**	1130
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	08/03/2006	**Part Section:**	46.9(b)(2)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1130	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	10/29/2006	**Docket No:**	
Violation Occur Dt:	08/03/2006	**Section of Act 2:**	
Proposed Penalty:	60	**Docket Stat Cd:**	
Violator Violation Cnt:	10	**Contested Ind:**	No
Amount Due:	60	**Contested Dt:**	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	1117267	**Amount Paid:**	144
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	02/10/2004
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	03/19/2004
Inj Illness:	LostDays	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	08/14/2003
Inspection Begin Dt:	08/12/2003	**Cal Yr:**	2003
Negligence:	HighNegligence	**Latest Term Due Tm:**	1430
Inspection End Dt:	08/13/2003	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	11/05/2003
Violation No:	6351640	**Fiscal Yr:**	2003
Enforcement Area:		**Termination Time:**	1503
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:	08/12/2003	**Vacate Time:**	
Violation Issue Dt:	08/12/2003	**Part Section:**	56.11001
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0729	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	04/08/2004	**Docket No:**	
Violation Occur Dt:	08/12/2003	**Section of Act 2:**	
Proposed Penalty:	144	**Docket Stat Cd:**	
Violator Violation Cnt:	5	**Contested Ind:**	No
Amount Due:	144	**Contested Dt:**	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	1122989	**Amount Paid:**	60
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	09/14/2006
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	08/07/2006
Controller ID:	M07059	**Last Action Dt:**	12/11/2006
Inj Illness:	Permanent	**Orig Term Due Tm:**	0800
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	08/07/2006
Inspection Begin Dt:	08/03/2006	**Cal Yr:**	2006
Negligence:	ModNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	08/07/2006	**Cal Qtr:**	3

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Written Notice:		***Termination Dt:***	08/07/2006
Violation No:	6390282	***Fiscal Yr:***	2006
Enforcement Area:		***Termination Time:***	1042
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	08/03/2006	***Part Section:***	56.14132(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1245	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/29/2006	***Docket No:***	
Violation Occur Dt:	08/03/2006	***Section of Act 2:***	
Proposed Penalty:	60	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	60	***Contested Dt:***	
Violator Insp Day Cnt:	8		

Violation Details

Event No:	1160852	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	02/14/2013
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	01/11/2013
Controller ID:	M07059	***Last Action Dt:***	09/18/2014
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	01/11/2013
Inspection Begin Dt:	01/04/2013	***Cal Yr:***	2013
Negligence:	ModNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	01/08/2013	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	02/07/2013
Violation No:	8689804	***Fiscal Yr:***	2013
Enforcement Area:		***Termination Time:***	1238
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	01/04/2013	***Part Section:***	56.12028
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1015	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	03/23/2013	***Docket No:***	
Violation Occur Dt:	01/04/2013	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	18	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	6		

Violation Details

Event No:	1160355	***Amount Paid:***	117
Initial Viol No:		***Contractor ID:***	
Mine Name:	Fab-Tech 18	***Bill Print Dt:***	09/13/2012
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	07/26/2012
Controller ID:	M07059	***Last Action Dt:***	07/15/2013
Inj Illness:	LostDays	***Orig Term Due Tm:***	1100
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	07/26/2012
Inspection Begin Dt:	07/25/2012	***Cal Yr:***	2012
Negligence:	ModNegligence	***Latest Term Due Tm:***	1100

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Inspection End Dt:	07/26/2012	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	07/26/2012
Violation No:	8607747	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	1215
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	07/25/2012	**Part Section:**	56.4102
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1054	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	10/20/2012	**Docket No:**	
Violation Occur Dt:	07/25/2012	**Section of Act 2:**	
Proposed Penalty:	117	**Docket Stat Cd:**	
Violator Violation Cnt:	10	**Contested Ind:**	No
Amount Due:	117	**Contested Dt:**	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1160355	**Amount Paid:**	176
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	09/13/2012
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	07/26/2012
Controller ID:	M07059	**Last Action Dt:**	07/15/2013
Inj Illness:	Permanent	**Orig Term Due Tm:**	1100
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	07/26/2012
Inspection Begin Dt:	07/25/2012	**Cal Yr:**	2012
Negligence:	ModNegligence	**Latest Term Due Tm:**	1100
Inspection End Dt:	07/26/2012	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	07/26/2012
Violation No:	8607746	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	1206
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	07/25/2012	**Part Section:**	56.14107(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0940	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	10/20/2012	**Docket No:**	
Violation Occur Dt:	07/25/2012	**Section of Act 2:**	
Proposed Penalty:	176	**Docket Stat Cd:**	
Violator Violation Cnt:	10	**Contested Ind:**	No
Amount Due:	176	**Contested Dt:**	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1152933	**Amount Paid:**	897
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	09/15/2011
Replaced by Ord No:		**Cit Ord Safe:**	Order
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	07/17/2014
Inj Illness:	Fatal	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	
Inspection Begin Dt:	04/06/2011	**Cal Yr:**	2011

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Negligence:	HighNegligence	**Latest Term Due Tm:**	
Inspection End Dt:	04/19/2011	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/12/2011
Violation No:	8567236	**Fiscal Yr:**	2011
Enforcement Area:		**Termination Time:**	1100
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/11/2011	**Part Section:**	46.5(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1030	**Section of Act 1:**	104(g)(1)
Final Ord Issue Dt:	10/22/2011	**Docket No:**	
Violation Occur Dt:	04/11/2011	**Section of Act 2:**	
Proposed Penalty:	897	**Docket Stat Cd:**	
Violator Violation Cnt:	2	**Contested Ind:**	No
Amount Due:	897	**Contested Dt:**	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	6595646	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	08/13/2015
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	06/30/2015
Controller ID:	M07059	**Last Action Dt:**	03/23/2016
Inj Illness:	Permanent	**Orig Term Due Tm:**	0800
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	07/01/2015
Inspection Begin Dt:	06/23/2015	**Cal Yr:**	2015
Negligence:	LowNegligence	**Latest Term Due Tm:**	1630
Inspection End Dt:	06/30/2015	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	07/16/2015
Violation No:	8788316	**Fiscal Yr:**	2015
Enforcement Area:		**Termination Time:**	0812
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Mill	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	06/29/2015	**Part Section:**	56.14107(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1246	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	10/13/2015	**Docket No:**	
Violation Occur Dt:	06/29/2015	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	14	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1160865	**Amount Paid:**	2678
Initial Viol No:		**Contractor ID:**	
Mine Name:	Fab-Tech 18	**Bill Print Dt:**	06/13/2013
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	04/17/2013
Controller ID:	M07059	**Last Action Dt:**	07/26/2016
Inj Illness:	Permanent	**Orig Term Due Tm:**	1200
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/17/2013

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Inspection Begin Dt:	04/17/2013	**Cal Yr:**	2013
Negligence:	HighNegligence	**Latest Term Due Tm:**	1200
Inspection End Dt:	04/18/2013	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/17/2013
Violation No:	8689818	**Fiscal Yr:**	2013
Enforcement Area:		**Termination Time:**	1005
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/17/2013	**Part Section:**	56.11001
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0710	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	11/25/2014	**Docket No:**	
Violation Occur Dt:	04/17/2013	**Section of Act 2:**	
Proposed Penalty:	2678	**Docket Stat Cd:**	
Violator Violation Cnt:	21	**Contested Ind:**	No
Amount Due:	2678	**Contested Dt:**	
Violator Insp Day Cnt:	8		

2	7 of 10	N	0.00 / 0.00	1,431.48 / 0	NORTH COUNTY SAND & GRAVEL INC Highland CA	MINES

Mine ID:	0405632	**SIC:**	144200
Entity Name:	ROADRUNNER 32	**Secondary SIC 1:**	000000
Status Code:	4	**Secondary SIC 2:**	000000
Mine Status:	Permanently Abandoned	**Secondary SIC 3:**	000000
Status Date:	20181030	**Secondary SIC 4:**	000000
Operation Class:	2 - Non-coal mining	**Secondary SIC 5:**	000000
Company Type:	Corporation	**Mines Prim SIC CD:**	144200
Assess Ctrl No:	000479678	**Primary SIC:**	Construction Sand and Gravel
Current Mine Name:	Roadrunner 32	**Primary SIC CD 1:**	1442
Current Mine Type:	Surface	**Primary SIC CD SFX:**	00
Current Mine Status:	Abandoned	**Secondary SIC CD:**	
Current Status Dt:	10/30/2018	**Secondary SIC:**	
Current Controller ID:	M07059	**Secondary SIC CD 1:**	
Curr Controller Name:	Mike J LaPaglia	**Sec SIC CD Sfx:**	
Curr Cont Begin Dt:	04/19/2004	**Primary Canvass CD:**	5
Curr Operator ID:	L08940	**Primary Canvass:**	SandAndGravel
Curr Operator Name:	North County Sand & Gravel Inc	**Sec Canvass CD:**	
Coal Metal Ind:	M	**Secondary Canvass:**	
Mines State:	CA	**Lat Deg:**	33
No of Shops:	0	**Lat Min:**	44
No of Plants:	0	**Lat Sec:**	26
No of Pits:	000	**Long Deg:**	117
Current 103I:		**Long Min:**	10
Current 103I Dt:		**Long Sec:**	54
Portable Operation:	No	**Longitude:**	-117.181667
Portable FIPS St CD:		**Latitude:**	33.740556
Days Per Week:	0	**County Code:**	071
Hours Per Shift:	0	**State Code:**	06
Prod Shifts Per Day:	0	**District:**	M7
Maint Shifts Per Day:	0	**BOM State CD:**	04
No Employees:	0	**FIPS Cnty CD:**	071
Part48 Training:	Yes	**FIPS Cnty Nm:**	San Bernardino
Avg Mine Height:		**Cong Dist CD:**	
Mine Gas Ctgry CD:		**Contact Title:**	General Manager
Methane Liberation:		**Street:**	26227 Sherman Rd
No Producing Pits:		**Po Box:**	
No Non-Prod Pits:		**City:**	Menifee
No Tailing Ponds:	0	**State Abbr:**	CA
Pillar Recovery Used:	No	**FIPS State CD:**	06
Highwall Miner Used:	No	**State:**	California
Multiple Pits:	No	**Zip CD:**	92585

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Miners Rep Ind:	No	**Country:**	USA
Safety Committee Ind:	No	**Province:**	
Miles from Office:	10	**Postal CD:**	
Directions to Mine:	Portable Operation - Various Location. Office: 215 exit Ethanac east, Sherman Rd right, down on right	**Primary SIC CD:**	Construction Sand and Gravel
Office CD:	M7831	**State Abbrev:**	CA
Office Name:	San Bernardino CA Field Office		
Status Description:	The mine has been permanently shut down.		
Source File Desc:	Master Index File;MINES Data Set		

Violation Details

Event No:	1147688	**Amount Paid:**	108
Initial Viol No:		**Contractor ID:**	
Mine Name:	Roadrunner 32	**Bill Print Dt:**	06/17/2010
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	04/27/2010
Controller ID:	M07059	**Last Action Dt:**	12/14/2010
Inj Illness:	LostDays	**Orig Term Due Tm:**	0905
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/27/2010
Inspection Begin Dt:	04/27/2010	**Cal Yr:**	2010
Negligence:	ModNegligence	**Latest Term Due Tm:**	0905
Inspection End Dt:	04/28/2010	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/27/2010
Violation No:	6485481	**Fiscal Yr:**	2010
Enforcement Area:		**Termination Time:**	0935
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/27/2010	**Part Section:**	56.9301
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0850	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	07/24/2010	**Docket No:**	
Violation Occur Dt:	04/27/2010	**Section of Act 2:**	
Proposed Penalty:	108	**Docket Stat Cd:**	
Violator Violation Cnt:	16	**Contested Ind:**	No
Amount Due:	108	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1160350	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Roadrunner 32	**Bill Print Dt:**	08/16/2012
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	06/29/2012
Controller ID:	M07059	**Last Action Dt:**	04/10/2013
Inj Illness:	Permanent	**Orig Term Due Tm:**	0900
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	06/29/2012
Inspection Begin Dt:	06/28/2012	**Cal Yr:**	2012
Negligence:	ModNegligence	**Latest Term Due Tm:**	0900
Inspection End Dt:	07/02/2012	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	07/02/2012
Violation No:	8607734	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	1255
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	

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Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	06/28/2012	***Part Section:***	56.14100(c)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1035	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	09/22/2012	***Docket No:***	
Violation Occur Dt:	06/28/2012	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	3	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1160106	***Amount Paid:***	1795
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	03/17/2011
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	02/01/2011
Controller ID:	M07059	***Last Action Dt:***	06/08/2011
Inj Illness:	LostDays	***Orig Term Due Tm:***	1100
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	02/01/2011
Inspection Begin Dt:	02/01/2011	***Cal Yr:***	2011
Negligence:	HighNegligence	***Latest Term Due Tm:***	1100
Inspection End Dt:	02/03/2011	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	02/01/2011
Violation No:	8560351	***Fiscal Yr:***	2011
Enforcement Area:		***Termination Time:***	1115
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	02/01/2011	***Part Section:***	56.9300(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1035	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	04/23/2011	***Docket No:***	
Violation Occur Dt:	02/01/2011	***Section of Act 2:***	
Proposed Penalty:	1795	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	1795	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1142958	***Amount Paid:***	
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	
Replaced by Ord No:		***Cit Ord Safe:***	Order
Mine Type:	Surface	***Last Action Cd:***	
Likelihood:		***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	
Inj Illness:		***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	
Inspection Begin Dt:	04/16/2009	***Cal Yr:***	2009
Negligence:		***Latest Term Due Tm:***	
Inspection End Dt:	04/23/2009	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/27/2009
Violation No:	7980680	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	1128
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	

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Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/16/2009	***Part Section:***	
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	
Violation Issue Time:	1020	***Section of Act 1:***	107(a)
Final Ord Issue Dt:		***Docket No:***	
Violation Occur Dt:	04/16/2009	***Section of Act 2:***	
Proposed Penalty:		***Docket Stat Cd:***	
Violator Violation Cnt:		***Contested Ind:***	No
Amount Due:		***Contested Dt:***	
Violator Insp Day Cnt:			

Violation Details

Event No:	1147688	***Amount Paid:***	362
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	06/17/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	04/27/2010
Controller ID:	M07059	***Last Action Dt:***	12/14/2010
Inj Illness:	LostDays	***Orig Term Due Tm:***	1050
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/27/2010
Inspection Begin Dt:	04/27/2010	***Cal Yr:***	2010
Negligence:	HighNegligence	***Latest Term Due Tm:***	1050
Inspection End Dt:	04/28/2010	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/27/2010
Violation No:	6485483	***Fiscal Yr:***	2010
Enforcement Area:		***Termination Time:***	1110
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/27/2010	***Part Section:***	56.4104(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1035	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/24/2010	***Docket No:***	
Violation Occur Dt:	04/27/2010	***Section of Act 2:***	
Proposed Penalty:	362	***Docket Stat Cd:***	
Violator Violation Cnt:	16	***Contested Ind:***	No
Amount Due:	362	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1160106	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	03/17/2011
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	02/01/2011
Controller ID:	M07059	***Last Action Dt:***	06/08/2011
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	1500
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	02/01/2011
Inspection Begin Dt:	02/01/2011	***Cal Yr:***	2011
Negligence:	HighNegligence	***Latest Term Due Tm:***	1500
Inspection End Dt:	02/03/2011	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	02/01/2011
Violation No:	8560350	***Fiscal Yr:***	2011
Enforcement Area:		***Termination Time:***	1400
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated

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Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	02/01/2011	***Part Section:***	56.1000
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1030	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	04/23/2011	***Docket No:***	
Violation Occur Dt:	02/01/2011	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1128452	***Amount Paid:***	60
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	05/18/2006
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	03/27/2006
Controller ID:	M07059	***Last Action Dt:***	05/30/2006
Inj Illness:	Permanent	***Orig Term Due Tm:***	1200
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	03/27/2006
Inspection Begin Dt:	03/27/2006	***Cal Yr:***	2006
Negligence:	ModNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	03/27/2006	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	03/27/2006
Violation No:	6381339	***Fiscal Yr:***	2006
Enforcement Area:		***Termination Time:***	1245
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	03/27/2006	***Part Section:***	56.14107(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1130	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/02/2006	***Docket No:***	
Violation Occur Dt:	03/27/2006	***Section of Act 2:***	
Proposed Penalty:	60	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	60	***Contested Dt:***	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1147666	***Amount Paid:***	807
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	02/18/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	12/15/2009
Controller ID:	M07059	***Last Action Dt:***	10/28/2010
Inj Illness:	Permanent	***Orig Term Due Tm:***	0925
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	12/15/2009
Inspection Begin Dt:	12/15/2009	***Cal Yr:***	2009
Negligence:	ModNegligence	***Latest Term Due Tm:***	0925
Inspection End Dt:	12/16/2009	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	12/16/2009
Violation No:	6485392	***Fiscal Yr:***	2010
Enforcement Area:		***Termination Time:***	0825
Violator ID:	L08940	***Fiscal Qtr:***	1

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Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	12/15/2009	***Part Section:***	56.14112(a)(1)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0910	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	03/26/2010	***Docket No:***	
Violation Occur Dt:	12/15/2009	***Section of Act 2:***	
Proposed Penalty:	807	***Docket Stat Cd:***	
Violator Violation Cnt:	13	***Contested Ind:***	No
Amount Due:	807	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1142935	***Amount Paid:***	108
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	03/19/2009
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	01/22/2009
Controller ID:	M07059	***Last Action Dt:***	03/01/2010
Inj Illness:	Permanent	***Orig Term Due Tm:***	1300
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	01/22/2009
Inspection Begin Dt:	01/22/2009	***Cal Yr:***	2009
Negligence:	ModNegligence	***Latest Term Due Tm:***	1300
Inspection End Dt:	01/26/2009	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	01/22/2009
Violation No:	7980654	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	1230
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	01/22/2009	***Part Section:***	56.9300(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1200	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	04/24/2009	***Docket No:***	
Violation Occur Dt:	01/22/2009	***Section of Act 2:***	
Proposed Penalty:	108	***Docket Stat Cd:***	
Violator Violation Cnt:	2	***Contested Ind:***	No
Amount Due:	108	***Contested Dt:***	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1142905	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	12/18/2008
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	10/21/2008
Controller ID:	M07059	***Last Action Dt:***	04/08/2009
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	1300
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	10/21/2008
Inspection Begin Dt:	10/21/2008	***Cal Yr:***	2008
Negligence:	HighNegligence	***Latest Term Due Tm:***	1300
Inspection End Dt:	10/21/2008	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	10/21/2008
Violation No:	6440067	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	1300

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Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/21/2008	***Part Section:***	56.1000
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1200	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/28/2009	***Docket No:***	
Violation Occur Dt:	10/21/2008	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1147666	***Amount Paid:***	807
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	02/18/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	12/15/2009
Controller ID:	M07059	***Last Action Dt:***	10/28/2010
Inj Illness:	Fatal	***Orig Term Due Tm:***	1235
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	12/15/2009
Inspection Begin Dt:	12/15/2009	***Cal Yr:***	2009
Negligence:	LowNegligence	***Latest Term Due Tm:***	1235
Inspection End Dt:	12/16/2009	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	12/15/2009
Violation No:	6485394	***Fiscal Yr:***	2010
Enforcement Area:		***Termination Time:***	1235
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	12/15/2009	***Part Section:***	56.14100(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1205	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	03/26/2010	***Docket No:***	
Violation Occur Dt:	12/15/2009	***Section of Act 2:***	
Proposed Penalty:	807	***Docket Stat Cd:***	
Violator Violation Cnt:	13	***Contested Ind:***	No
Amount Due:	807	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1152383	***Amount Paid:***	362
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	12/16/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	11/03/2010
Controller ID:	M07059	***Last Action Dt:***	01/26/2011
Inj Illness:	Permanent	***Orig Term Due Tm:***	1130
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	11/03/2010
Inspection Begin Dt:	11/03/2010	***Cal Yr:***	2010
Negligence:	HighNegligence	***Latest Term Due Tm:***	1130
Inspection End Dt:	11/03/2010	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	11/12/2010
Violation No:	8560328	***Fiscal Yr:***	2011

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Enforcement Area:		***Termination Time:***	0840
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	11/03/2010	***Part Section:***	56.14112(a)(1)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1044	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/21/2011	***Docket No:***	
Violation Occur Dt:	11/03/2010	***Section of Act 2:***	
Proposed Penalty:	362	***Docket Stat Cd:***	
Violator Violation Cnt:	8	***Contested Ind:***	No
Amount Due:	362	***Contested Dt:***	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	1142958	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	06/18/2009
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	04/16/2009
Controller ID:	M07059	***Last Action Dt:***	10/28/2010
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	1500
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	04/16/2009
Inspection Begin Dt:	04/16/2009	***Cal Yr:***	2009
Negligence:	HighNegligence	***Latest Term Due Tm:***	1500
Inspection End Dt:	04/23/2009	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/16/2009
Violation No:	7980687	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	1500
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/16/2009	***Part Section:***	46.9(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1100	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/24/2009	***Docket No:***	
Violation Occur Dt:	04/16/2009	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	3	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1142958	***Amount Paid:***	2000
Initial Viol No:	7980681	***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	06/18/2009
Replaced by Ord No:		***Cit Ord Safe:***	Order
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	10/28/2010
Inj Illness:	Permanent	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	
Inspection Begin Dt:	04/16/2009	***Cal Yr:***	2009
Negligence:	HighNegligence	***Latest Term Due Tm:***	
Inspection End Dt:	04/23/2009	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/27/2009

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Violation No:	7980683	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	1151
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/16/2009	***Part Section:***	56.15002
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1023	***Section of Act 1:***	104(d)(1)
Final Ord Issue Dt:	07/24/2009	***Docket No:***	
Violation Occur Dt:	04/16/2009	***Section of Act 2:***	
Proposed Penalty:	2000	***Docket Stat Cd:***	
Violator Violation Cnt:	3	***Contested Ind:***	No
Amount Due:	2000	***Contested Dt:***	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1152383	***Amount Paid:***	362
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	12/16/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	11/03/2010
Controller ID:	M07059	***Last Action Dt:***	01/26/2011
Inj Illness:	Permanent	***Orig Term Due Tm:***	1130
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	11/03/2010
Inspection Begin Dt:	11/03/2010	***Cal Yr:***	2010
Negligence:	HighNegligence	***Latest Term Due Tm:***	1130
Inspection End Dt:	11/03/2010	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	11/12/2010
Violation No:	8560329	***Fiscal Yr:***	2011
Enforcement Area:		***Termination Time:***	0851
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	11/03/2010	***Part Section:***	56.14107(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1055	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/21/2011	***Docket No:***	
Violation Occur Dt:	11/03/2010	***Section of Act 2:***	
Proposed Penalty:	362	***Docket Stat Cd:***	
Violator Violation Cnt:	8	***Contested Ind:***	No
Amount Due:	362	***Contested Dt:***	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	6821142	***Amount Paid:***	118
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	12/13/2018
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	10/24/2018
Controller ID:	M07059	***Last Action Dt:***	12/26/2018
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	0830
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	10/24/2018
Inspection Begin Dt:	10/22/2018	***Cal Yr:***	2018
Negligence:	LowNegligence	***Latest Term Due Tm:***	0830
Inspection End Dt:	10/26/2018	***Cal Qtr:***	4

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Written Notice:	No	***Termination Dt:***	10/24/2018
Violation No:	9432427	***Fiscal Yr:***	2019
Enforcement Area:		***Termination Time:***	0830
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/23/2018	***Part Section:***	56.1000
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1500	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/16/2019	***Docket No:***	
Violation Occur Dt:	10/23/2018	***Section of Act 2:***	
Proposed Penalty:	118	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	118	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1160106	***Amount Paid:***	2678
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	03/17/2011
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	02/01/2011
Controller ID:	M07059	***Last Action Dt:***	01/11/2012
Inj Illness:	Permanent	***Orig Term Due Tm:***	1100
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	02/01/2011
Inspection Begin Dt:	02/01/2011	***Cal Yr:***	2011
Negligence:	HighNegligence	***Latest Term Due Tm:***	1100
Inspection End Dt:	02/03/2011	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	02/03/2011
Violation No:	8560352	***Fiscal Yr:***	2011
Enforcement Area:		***Termination Time:***	0900
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	02/01/2011	***Part Section:***	56.14107(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1040	***Section of Act 1:***	104(d)(1)
Final Ord Issue Dt:	04/23/2011	***Docket No:***	
Violation Occur Dt:	02/01/2011	***Section of Act 2:***	
Proposed Penalty:	2678	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	2678	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1147688	***Amount Paid:***	1795
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	06/17/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	04/27/2010
Controller ID:	M07059	***Last Action Dt:***	12/14/2010
Inj Illness:	LostDays	***Orig Term Due Tm:***	1020
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/27/2010
Inspection Begin Dt:	04/27/2010	***Cal Yr:***	2010
Negligence:	HighNegligence	***Latest Term Due Tm:***	1020

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Inspection End Dt:	04/28/2010	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/27/2010
Violation No:	6485482	***Fiscal Yr:***	2010
Enforcement Area:		***Termination Time:***	1125
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/27/2010	***Part Section:***	56.9300(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1005	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/24/2010	***Docket No:***	
Violation Occur Dt:	04/27/2010	***Section of Act 2:***	
Proposed Penalty:	1795	***Docket Stat Cd:***	
Violator Violation Cnt:	16	***Contested Ind:***	No
Amount Due:	1795	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1160350	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	08/16/2012
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	06/29/2012
Controller ID:	M07059	***Last Action Dt:***	04/10/2013
Inj Illness:	Permanent	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	06/29/2012
Inspection Begin Dt:	06/28/2012	***Cal Yr:***	2012
Negligence:	ModNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	07/02/2012	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	07/02/2012
Violation No:	8607735	***Fiscal Yr:***	2012
Enforcement Area:		***Termination Time:***	1315
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	06/28/2012	***Part Section:***	56.14107(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1040	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	09/22/2012	***Docket No:***	
Violation Occur Dt:	06/28/2012	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	3	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1133541	***Amount Paid:***	60
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	05/17/2007
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	04/05/2007
Controller ID:	M07059	***Last Action Dt:***	07/26/2007
Inj Illness:	Fatal	***Orig Term Due Tm:***	1330
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/05/2007
Inspection Begin Dt:	04/05/2007	***Cal Yr:***	2007

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Negligence:	HighNegligence	**Latest Term Due Tm:**	1330
Inspection End Dt:	04/09/2007	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/05/2007
Violation No:	6380385	**Fiscal Yr:**	2007
Enforcement Area:		**Termination Time:**	1330
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/05/2007	**Part Section:**	56.18002(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1300	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	07/01/2007	**Docket No:**	
Violation Occur Dt:	04/05/2007	**Section of Act 2:**	
Proposed Penalty:	60	**Docket Stat Cd:**	
Violator Violation Cnt:	1	**Contested Ind:**	No
Amount Due:	60	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1142958	**Amount Paid:**	108
Initial Viol No:		**Contractor ID:**	
Mine Name:	Roadrunner 32	**Bill Print Dt:**	06/18/2009
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	04/16/2009
Controller ID:	M07059	**Last Action Dt:**	10/28/2010
Inj Illness:	Permanent	**Orig Term Due Tm:**	1300
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/20/2009
Inspection Begin Dt:	04/16/2009	**Cal Yr:**	2009
Negligence:	ModNegligence	**Latest Term Due Tm:**	0900
Inspection End Dt:	04/23/2009	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/23/2009
Violation No:	7980685	**Fiscal Yr:**	2009
Enforcement Area:		**Termination Time:**	0930
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/16/2009	**Part Section:**	56.14107(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1216	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	07/24/2009	**Docket No:**	
Violation Occur Dt:	04/16/2009	**Section of Act 2:**	
Proposed Penalty:	108	**Docket Stat Cd:**	
Violator Violation Cnt:	3	**Contested Ind:**	No
Amount Due:	108	**Contested Dt:**	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1142958	**Amount Paid:**	3500
Initial Viol No:		**Contractor ID:**	
Mine Name:	Roadrunner 32	**Bill Print Dt:**	11/19/2009
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	01/09/2014
Inj Illness:	Permanent	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	

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Inspection Begin Dt:	04/16/2009	***Cal Yr:***	2009
Negligence:	HighNegligence	***Latest Term Due Tm:***	
Inspection End Dt:	04/23/2009	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/27/2009
Violation No:	7980681	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	1134
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	Yes	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/16/2009	***Part Section:***	56.15005
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1021	***Section of Act 1:***	104(d)(1)
Final Ord Issue Dt:	11/06/2013	***Docket No:***	WEST 2010-365M
Violation Occur Dt:	04/16/2009	***Section of Act 2:***	
Proposed Penalty:	35500	***Docket Stat Cd:***	Accepted
Violator Violation Cnt:	3	***Contested Ind:***	Yes
Amount Due:	3500	***Contested Dt:***	12/11/2009
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1142958	***Amount Paid:***	2000
Initial Viol No:	7980681	***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	06/18/2009
Replaced by Ord No:		***Cit Ord Safe:***	Order
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	10/28/2010
Inj Illness:	Permanent	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	2	***Latest Term Due Dt:***	
Inspection Begin Dt:	04/16/2009	***Cal Yr:***	2009
Negligence:	HighNegligence	***Latest Term Due Tm:***	
Inspection End Dt:	04/23/2009	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/27/2009
Violation No:	7980682	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	1145
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/16/2009	***Part Section:***	56.15004
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1022	***Section of Act 1:***	104(d)(1)
Final Ord Issue Dt:	07/24/2009	***Docket No:***	
Violation Occur Dt:	04/16/2009	***Section of Act 2:***	
Proposed Penalty:	2000	***Docket Stat Cd:***	
Violator Violation Cnt:	3	***Contested Ind:***	No
Amount Due:	2000	***Contested Dt:***	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1147666	***Amount Paid:***	108
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	02/18/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	12/15/2009
Controller ID:	M07059	***Last Action Dt:***	10/28/2010
Inj Illness:	LostDays	***Orig Term Due Tm:***	0810
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M

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No Affected:	1	**Latest Term Due Dt:**	12/15/2009
Inspection Begin Dt:	12/15/2009	**Cal Yr:**	2009
Negligence:	ModNegligence	**Latest Term Due Tm:**	0810
Inspection End Dt:	12/16/2009	**Cal Qtr:**	4
Written Notice:		**Termination Dt:**	12/15/2009
Violation No:	6485389	**Fiscal Yr:**	2010
Enforcement Area:		**Termination Time:**	1040
Violator ID:	L08940	**Fiscal Qtr:**	1
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	12/15/2009	**Part Section:**	56.14132(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0750	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	03/26/2010	**Docket No:**	
Violation Occur Dt:	12/15/2009	**Section of Act 2:**	
Proposed Penalty:	108	**Docket Stat Cd:**	
Violator Violation Cnt:	13	**Contested Ind:**	No
Amount Due:	108	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1142177	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Roadrunner 32	**Bill Print Dt:**	11/13/2008
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	NoLikelihood	**Orig Term Due Dt:**	09/02/2008
Controller ID:	M07059	**Last Action Dt:**	04/08/2009
Inj Illness:	NoLostDays	**Orig Term Due Tm:**	1545
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	0	**Latest Term Due Dt:**	09/02/2008
Inspection Begin Dt:	09/02/2008	**Cal Yr:**	2008
Negligence:	HighNegligence	**Latest Term Due Tm:**	1545
Inspection End Dt:	09/02/2008	**Cal Qtr:**	3
Written Notice:		**Termination Dt:**	09/02/2008
Violation No:	6440669	**Fiscal Yr:**	2008
Enforcement Area:		**Termination Time:**	1530
Violator ID:	L08940	**Fiscal Qtr:**	4
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	09/02/2008	**Part Section:**	50.30(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1524	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	12/20/2008	**Docket No:**	
Violation Occur Dt:	09/02/2008	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	4	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1160350	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Roadrunner 32	**Bill Print Dt:**	08/16/2012
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	NoLikelihood	**Orig Term Due Dt:**	07/03/2012
Controller ID:	M07059	**Last Action Dt:**	04/10/2013
Inj Illness:	NoLostDays	**Orig Term Due Tm:**	0900

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Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	0	**Latest Term Due Dt:**	07/03/2012
Inspection Begin Dt:	06/28/2012	**Cal Yr:**	2012
Negligence:	HighNegligence	**Latest Term Due Tm:**	0900
Inspection End Dt:	07/02/2012	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	07/02/2012
Violation No:	8607736	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	1550
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	06/28/2012	**Part Section:**	50.30(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1250	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	09/22/2012	**Docket No:**	
Violation Occur Dt:	06/28/2012	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	3	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1133541	**Amount Paid:**	60
Initial Viol No:		**Contractor ID:**	
Mine Name:	Roadrunner 32	**Bill Print Dt:**	05/17/2007
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	04/05/2007
Controller ID:	M07059	**Last Action Dt:**	07/26/2007
Inj Illness:	LostDays	**Orig Term Due Tm:**	1420
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/05/2007
Inspection Begin Dt:	04/05/2007	**Cal Yr:**	2007
Negligence:	ModNegligence	**Latest Term Due Tm:**	1420
Inspection End Dt:	04/09/2007	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/05/2007
Violation No:	6380387	**Fiscal Yr:**	2007
Enforcement Area:		**Termination Time:**	1420
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/05/2007	**Part Section:**	56.4104(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1410	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	07/01/2007	**Docket No:**	
Violation Occur Dt:	04/05/2007	**Section of Act 2:**	
Proposed Penalty:	60	**Docket Stat Cd:**	
Violator Violation Cnt:	1	**Contested Ind:**	No
Amount Due:	60	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1142935	**Amount Paid:**	108
Initial Viol No:		**Contractor ID:**	
Mine Name:	Roadrunner 32	**Bill Print Dt:**	03/19/2009
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	01/22/2009
Controller ID:	M07059	**Last Action Dt:**	03/01/2010

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Inj Illness:	Permanent	***Orig Term Due Tm:***	1300
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	01/26/2009
Inspection Begin Dt:	01/22/2009	***Cal Yr:***	2009
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	01/26/2009	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	01/26/2009
Violation No:	7980652	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	1205
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	01/22/2009	***Part Section:***	56.14107(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1110	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	04/24/2009	***Docket No:***	
Violation Occur Dt:	01/22/2009	***Section of Act 2:***	
Proposed Penalty:	108	***Docket Stat Cd:***	
Violator Violation Cnt:	2	***Contested Ind:***	No
Amount Due:	108	***Contested Dt:***	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1142935	***Amount Paid:***	108
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	03/19/2009
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	01/22/2009
Controller ID:	M07059	***Last Action Dt:***	03/01/2010
Inj Illness:	Permanent	***Orig Term Due Tm:***	1300
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	01/22/2009
Inspection Begin Dt:	01/22/2009	***Cal Yr:***	2009
Negligence:	ModNegligence	***Latest Term Due Tm:***	1300
Inspection End Dt:	01/26/2009	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	01/22/2009
Violation No:	7980651	***Fiscal Yr:***	2009
Enforcement Area:		***Termination Time:***	1245
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	01/22/2009	***Part Section:***	56.15003
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1100	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	04/24/2009	***Docket No:***	
Violation Occur Dt:	01/22/2009	***Section of Act 2:***	
Proposed Penalty:	108	***Docket Stat Cd:***	
Violator Violation Cnt:	2	***Contested Ind:***	No
Amount Due:	108	***Contested Dt:***	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1147666	***Amount Paid:***	540
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	02/18/2010
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	12/15/2009

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Controller ID:	M07059	***Last Action Dt:***	10/28/2010
Inj Illness:	LostDays	***Orig Term Due Tm:***	1015
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	12/15/2009
Inspection Begin Dt:	12/15/2009	***Cal Yr:***	2009
Negligence:	ModNegligence	***Latest Term Due Tm:***	1015
Inspection End Dt:	12/16/2009	***Cal Qtr:***	4
Written Notice:		***Termination Dt:***	12/15/2009
Violation No:	6485393	***Fiscal Yr:***	2010
Enforcement Area:		***Termination Time:***	1035
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	12/15/2009	***Part Section:***	56.9300(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1000	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	03/26/2010	***Docket No:***	
Violation Occur Dt:	12/15/2009	***Section of Act 2:***	
Proposed Penalty:	540	***Docket Stat Cd:***	
Violator Violation Cnt:	13	***Contested Ind:***	No
Amount Due:	540	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1133541	***Amount Paid:***	60
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	05/17/2007
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	04/05/2007
Controller ID:	M07059	***Last Action Dt:***	07/26/2007
Inj Illness:	LostDays	***Orig Term Due Tm:***	1330
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/05/2007
Inspection Begin Dt:	04/05/2007	***Cal Yr:***	2007
Negligence:	HighNegligence	***Latest Term Due Tm:***	1330
Inspection End Dt:	04/09/2007	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/05/2007
Violation No:	6380384	***Fiscal Yr:***	2007
Enforcement Area:		***Termination Time:***	1400
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/05/2007	***Part Section:***	56.14100(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1245	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/01/2007	***Docket No:***	
Violation Occur Dt:	04/05/2007	***Section of Act 2:***	
Proposed Penalty:	60	***Docket Stat Cd:***	
Violator Violation Cnt:	1	***Contested Ind:***	No
Amount Due:	60	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1160350	***Amount Paid:***	108
Initial Viol No:		***Contractor ID:***	
Mine Name:	Roadrunner 32	***Bill Print Dt:***	08/16/2012
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid

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Likelihood:	Reasonably	**Orig Term Due Dt:**	06/29/2012
Controller ID:	M07059	**Last Action Dt:**	04/10/2013
Inj Illness:	Permanent	**Orig Term Due Tm:**	0900
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	06/29/2012
Inspection Begin Dt:	06/28/2012	**Cal Yr:**	2012
Negligence:	ModNegligence	**Latest Term Due Tm:**	0900
Inspection End Dt:	07/02/2012	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	07/02/2012
Violation No:	8607733	**Fiscal Yr:**	2012
Enforcement Area:		**Termination Time:**	1247
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	06/28/2012	**Part Section:**	56.14107(a)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1140	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	09/22/2012	**Docket No:**	
Violation Occur Dt:	06/28/2012	**Section of Act 2:**	
Proposed Penalty:	108	**Docket Stat Cd:**	
Violator Violation Cnt:	3	**Contested Ind:**	No
Amount Due:	108	**Contested Dt:**	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	1142935	**Amount Paid:**	108
Initial Viol No:		**Contractor ID:**	
Mine Name:	Roadrunner 32	**Bill Print Dt:**	03/19/2009
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	01/22/2009
Controller ID:	M07059	**Last Action Dt:**	03/01/2010
Inj Illness:	Permanent	**Orig Term Due Tm:**	1230
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	01/26/2009
Inspection Begin Dt:	01/22/2009	**Cal Yr:**	2009
Negligence:	ModNegligence	**Latest Term Due Tm:**	0800
Inspection End Dt:	01/26/2009	**Cal Qtr:**	1
Written Notice:		**Termination Dt:**	01/26/2009
Violation No:	7980653	**Fiscal Yr:**	2009
Enforcement Area:		**Termination Time:**	1210
Violator ID:	L08940	**Fiscal Qtr:**	2
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	01/22/2009	**Part Section:**	56.14112(a)(1)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1130	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	04/24/2009	**Docket No:**	
Violation Occur Dt:	01/22/2009	**Section of Act 2:**	
Proposed Penalty:	108	**Docket Stat Cd:**	
Violator Violation Cnt:	2	**Contested Ind:**	No
Amount Due:	108	**Contested Dt:**	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1142100	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Roadrunner 32	**Bill Print Dt:**	11/13/2008
Replaced by Ord No:		**Cit Ord Safe:**	Citation

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Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	NoLikelihood	**Orig Term Due Dt:**	10/02/2008
Controller ID:	M07059	**Last Action Dt:**	04/08/2009
Inj Illness:	NoLostDays	**Orig Term Due Tm:**	1300
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	0	**Latest Term Due Dt:**	10/02/2008
Inspection Begin Dt:	10/02/2008	**Cal Yr:**	2008
Negligence:	HighNegligence	**Latest Term Due Tm:**	1300
Inspection End Dt:	10/02/2008	**Cal Qtr:**	4
Written Notice:		**Termination Dt:**	10/02/2008
Violation No:	6440049	**Fiscal Yr:**	2009
Enforcement Area:		**Termination Time:**	1245
Violator ID:	L08940	**Fiscal Qtr:**	1
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	10/02/2008	**Part Section:**	56.1000
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1100	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	12/20/2008	**Docket No:**	
Violation Occur Dt:	10/02/2008	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	0	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	1142958	**Amount Paid:**	2000
Initial Viol No:	7980681	**Contractor ID:**	
Mine Name:	Roadrunner 32	**Bill Print Dt:**	06/18/2009
Replaced by Ord No:		**Cit Ord Safe:**	Order
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Reasonably	**Orig Term Due Dt:**	
Controller ID:	M07059	**Last Action Dt:**	10/28/2010
Inj Illness:	Permanent	**Orig Term Due Tm:**	
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	
Inspection Begin Dt:	04/16/2009	**Cal Yr:**	2009
Negligence:	HighNegligence	**Latest Term Due Tm:**	
Inspection End Dt:	04/23/2009	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/27/2009
Violation No:	7980684	**Fiscal Yr:**	2009
Enforcement Area:		**Termination Time:**	1200
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	Yes
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/16/2009	**Part Section:**	56.15003
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1024	**Section of Act 1:**	104(d)(1)
Final Ord Issue Dt:	07/24/2009	**Docket No:**	
Violation Occur Dt:	04/16/2009	**Section of Act 2:**	
Proposed Penalty:	2000	**Docket Stat Cd:**	
Violator Violation Cnt:	3	**Contested Ind:**	No
Amount Due:	2000	**Contested Dt:**	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	1147666	**Amount Paid:**	108
Initial Viol No:		**Contractor ID:**	
Mine Name:	Roadrunner 32	**Bill Print Dt:**	02/18/2010

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Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	12/15/2009
Controller ID:	M07059	**Last Action Dt:**	10/28/2010
Inj Illness:	LostDays	**Orig Term Due Tm:**	0830
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	12/15/2009
Inspection Begin Dt:	12/15/2009	**Cal Yr:**	2009
Negligence:	ModNegligence	**Latest Term Due Tm:**	0830
Inspection End Dt:	12/16/2009	**Cal Qtr:**	4
Written Notice:		**Termination Dt:**	12/15/2009
Violation No:	6485390	**Fiscal Yr:**	2010
Enforcement Area:		**Termination Time:**	1135
Violator ID:	L08940	**Fiscal Qtr:**	1
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	12/15/2009	**Part Section:**	56.4201(a)(2)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	0810	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	03/26/2010	**Docket No:**	
Violation Occur Dt:	12/15/2009	**Section of Act 2:**	
Proposed Penalty:	108	**Docket Stat Cd:**	
Violator Violation Cnt:	13	**Contested Ind:**	No
Amount Due:	108	**Contested Dt:**	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	1142958	**Amount Paid:**	100
Initial Viol No:		**Contractor ID:**	
Mine Name:	Roadrunner 32	**Bill Print Dt:**	06/18/2009
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	05/01/2009
Controller ID:	M07059	**Last Action Dt:**	10/28/2010
Inj Illness:	LostDays	**Orig Term Due Tm:**	0900
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	05/01/2009
Inspection Begin Dt:	04/16/2009	**Cal Yr:**	2009
Negligence:	ModNegligence	**Latest Term Due Tm:**	0900
Inspection End Dt:	04/23/2009	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	05/05/2009
Violation No:	7980688	**Fiscal Yr:**	2009
Enforcement Area:		**Termination Time:**	0615
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/23/2009	**Part Section:**	56.14100(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1000	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	07/24/2009	**Docket No:**	
Violation Occur Dt:	04/23/2009	**Section of Act 2:**	
Proposed Penalty:	100	**Docket Stat Cd:**	
Violator Violation Cnt:	3	**Contested Ind:**	No
Amount Due:	100	**Contested Dt:**	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	1133541	**Amount Paid:**	60
Initial Viol No:		**Contractor ID:**	

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Mine Name:	Roadrunner 32	**Bill Print Dt:**	05/17/2007
Replaced by Ord No:		**Cit Ord Safe:**	Citation
Mine Type:	Surface	**Last Action Cd:**	Paid
Likelihood:	Unlikely	**Orig Term Due Dt:**	04/05/2007
Controller ID:	M07059	**Last Action Dt:**	07/26/2007
Inj Illness:	Permanent	**Orig Term Due Tm:**	1400
Controller Name:	Mike J LaPaglia	**Coal Metal Ind:**	M
No Affected:	1	**Latest Term Due Dt:**	04/05/2007
Inspection Begin Dt:	04/05/2007	**Cal Yr:**	2007
Negligence:	ModNegligence	**Latest Term Due Tm:**	1400
Inspection End Dt:	04/09/2007	**Cal Qtr:**	2
Written Notice:		**Termination Dt:**	04/05/2007
Violation No:	6380386	**Fiscal Yr:**	2007
Enforcement Area:		**Termination Time:**	1400
Violator ID:	L08940	**Fiscal Qtr:**	3
Special Assess:	No	**Termination Type:**	Terminated
Violator Name:	North County Sand & Gravel Inc	**Sig Sub:**	No
Primary or Mill:	Primary	**Vacate Dt:**	
Violator Type CD:	Operator	**Section of Act:**	
Right to Conf Dt:		**Vacate Time:**	
Violation Issue Dt:	04/05/2007	**Part Section:**	56.14100(b)
Asmt Generated Ind:	No	**Assess Case Stat Cd:**	Closed
Violation Issue Time:	1355	**Section of Act 1:**	104(a)
Final Ord Issue Dt:	07/01/2007	**Docket No:**	
Violation Occur Dt:	04/05/2007	**Section of Act 2:**	
Proposed Penalty:	60	**Docket Stat Cd:**	
Violator Violation Cnt:	1	**Contested Ind:**	No
Amount Due:	60	**Contested Dt:**	
Violator Insp Day Cnt:	4		

2	***8 of 10***	***N***	***0.00 / 0.00***	***1,431.48 / 0***	***North County Sand & Gravel 26227 SHERMAN RD ROMOLAND CA 92585***	***DELISTED HAZ***

Siteid:	52529
Latitude:	33.740590
Longitude:	-117.181560
Original Source:	CHAZ
Record Date:	22-MAR-2018

2	***9 of 10***	***N***	***0.00 / 0.00***	***1,431.48 / 0***	***North County Sand & Gravel 26227 SHERMAN RD ROMOLAND CA 92585***	***CERS TANK***

Site ID:	52529	**Latitude:**	33.740590
Longitude:	-117.181560		

Regulated Programs

EI ID:	10324150
EI Description:	Aboveground Petroleum Storage
EI ID:	10324150
EI Description:	Hazardous Waste Generator
EI ID:	10324150
EI Description:	Chemical Storage Facilities

Violations

Violation Date:	09/02/2015	**Violation Source:**	CERS
Violation Program:	HMRRP	**Violation Division:**	Riverside County Department of Env Health
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)		
Violation Notes:			

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Returned to compliance on 03/23/2016.

Violation Description:

Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

Violations

Violation Date: 01/09/2020 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Notes:

Returned to compliance on 03/05/2020. OBSERVATION: No training records observed/provided during inspection. CORRECTIVE ACTION: Owner/operator shall provide training to all employees on an annual basis. Documentation shall be retained and be made available for inspection for a minimum period of 3 years from the date of the training. Training must cover all topics listed on the form provided during today's inspection.

Violation Description:

Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

Violations

Violation Date: 01/09/2020 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31
Violation Notes:

Returned to compliance on 03/05/2020. OBSERVATION: The facility is not being maintained to minimize the possibility of a release. There were two secondary containment pallets near the waste oil and waste oil filters that contained liquid. Also, there was absorbent that had been applied to spills near the waste oil tank and near the tank of motor oil, but the absorbent had not been cleaned up and placed into a container to be disposed of as hazardous waste. CORRECTIVE ACTION: Owner/operator shall remove the liquid from the secondary containment pallets and clean up the spent absorbent near the waste oil and motor oil tanks. Each of these waste streams must be disposed of as hazardous waste.

Violation Description:

Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Violations

Violation Date: 08/29/2018 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 04/19/2019.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Notes:

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Returned to compliance on 03/23/2016.

Violation Description:

Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

Violations

Violation Date: 01/09/2020 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: Un-Specified
Violation Notes:

Returned to compliance on 03/05/2020. OBSERVATION: The compressed gases are not being stored in a manner to minimize the possibility of a release. There were two argon cylinders and one oxygen cylinder that were not chained or otherwise secured to prevent them from tipping over. CORRECTIVE ACTION: Owner/operator shall store all hazardous materials in a manner which will prevent unauthorized fire, explosion, or release. Ensure that all compressed gas cylinders are secured to preclude them from falling over and causing a release.

Violation Description:

Business Plan Program - Operations/Maintenance - General Local Ordinance

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.201(c)(3) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(3)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to conduct daily tank inspection of the discharge systems, monitoring equipment, and tank levels.

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to inspect hazardous waste storage areas at least weekly.

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.5 25186.2 - California Health and Safety Code, Chapter 6.5, Section(s) 25186.2
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to properly handle, store, or treat hazardous waste or provided false information submitted on the permit application and other documents.

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Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: APSA ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to comply with all of the following requirements:
1. Failure to conduct inspections and tests in accordance with written procedures that you or a certifying engineer have developed for the facility.
2. Failure to sign written procedures and/or a record of inspections and/or customary business records by the appropriate supervisor or inspector.
3. Failure to keep written procedures and/or a record of inspections and/or customary business records with the plan. AND
4. Failure to maintain written procedures and/or a record of inspections and/or customary business records for three years.

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 09/02/2015.

Violation Description:

Failure to complete and electronically submit a site map with all required content.

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.201(f) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(f)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to remove all hazardous waste from tanks, discharge control equipment, and discharge confinement structures upon closure.

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to properly close hazardous waste containers when not in active use.

Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: APSA ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

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Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to perform a five-year review of the SPCC plan.

Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, or surface water which could threaten human health or the environment..

Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: APSA ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to promptly correct the causes of leaks that result in accumulations of oil in diked areas.

Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: APSA ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to provide training regarding:
1. The operation and maintenance of equipment to prevent discharges.
2. Discharge procedure protocols.
3. Applicable pollution control laws, rules, and regulations.
4. General facility operations. AND
5. The contents of the SPCC Plan.

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Notes:

Returned to compliance on 03/23/2016.

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Violation Description:

Failure to conduct weekly inspections of the construction materials, fixtures, and surrounding areas of the hazardous waste tanks.

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, or surface water which could threaten human health or the environment..

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Notes:

Returned to compliance on 03/23/2016. [LOCAL ORDINANCE VIOLATION 104D] Emergency equipment has been posted appropriately.

Violation Description:

Business Plan Program - Operations/Maintenance - General

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response.

Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: APSA ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to prepare and implement a Spill Prevention Control and Countermeasure (SPCC) Plan .

Violations

Violation Date: 01/09/2020 ***Violation Source:*** CERS

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Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 01/09/2020. OBSERVATION: The most recent business plan submission in the statewide information management system (CERS) was missing argon and motor oil, and the container type for the waste oil needs to be updated to reflect that the waste oil is now stored in a tank rather than drums. CORRECTIVE ACTION: Owner/operator shall complete a chemical inventory page for all reportable hazardous materials on site and submit to the statewide information management system (e.g. CERS) at http://cers.calepa.ca.gov.

Violation Description:

Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.32 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.32
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure of the facility to maintain the following emergency equipment or equivalents:
1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;
2) A device, such as a telephone (immediately available at the scene of Operations/ Maintenance) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;
3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and
4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.32 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.32
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure of the facility to maintain the following emergency equipment or equivalents:
1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;
2) A device, such as a telephone (immediately available at the scene of Operations/ Maintenance) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;
3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and
4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

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Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.

Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: APSA ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to meet the conditions of a Tier I or Tier II Qualified Facility: A Tier II qualified facility is one that has had no single discharge exceeding 1,000 U. S. gallons or no two discharges each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan self-certification date, or since becoming subject to this part if the facility has been in operation for less than three years (other than discharges that are the result of natural disasters, acts of war, or terrorism), and has an aggregate aboveground oil storage capacity of 10,000 U.S. gallons or less. A Tier I qualified facility meets the qualification criteria of a Tier II qualified facility and has no individual aboveground oil storage container with a capacity greater than 5,000 U.S. gallons.

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.201(b)(3) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(b)(3)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to maintain sufficient freeboard of 2 ft in uncovered tanks to prevent overtopping unless the tank is equipped with a containment structure, a drainage control system or a diversion structure with a capacity that equals or exceeds the volume of the top 2 ft of the tank.

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.33 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.33
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure of the facility to test and maintain all communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment.

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.

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Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.33 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.33
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure of the facility to test and maintain all communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment.

Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: APSA ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to maintain SPCC plan onsite (applies if facility is manned at least four (4) hours per day).

Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Notes:

Returned to compliance on 03/23/2016. Owner/operator failed to clearly identify emergency equipment storage locations. CORRECTIVE ACTION: Clearly identify the locations where emergency equipment is stored.

Violation Description:

Business Plan Program - Operations/Maintenance - General

Violations

Violation Date: 03/09/2016 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health

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Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response.

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Notes:

Returned to compliance on 03/23/2016.

Violation Description:

Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Violations

Violation Date: 09/02/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25508(d) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(d)
Violation Notes:

Returned to compliance on 09/02/2015.

Violation Description:

Failure to complete and/or electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.

Enforcements

Enf Action Date: 09/02/2015 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside County Department of Env Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 03/09/2016 ***Enf Action Program:*** HW
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside County Department of Env Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 03/09/2016 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside County Department of Env Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 09/02/2015 ***Enf Action Program:*** HW
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside County Department of Env Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

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Enf Action Date: 03/09/2016 ***Enf Action Program:*** APSA
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside County Department of Env Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Evaluations

Eval Date: 01/09/2020
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

Facility is a truck maintenance/storage yard for a sand and gravel supply company. Hazardous wastes generated onsite consist of waste oil, oil filters, and waste absorbent.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 09/02/2015
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

Eval Date: 07/30/2013
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Paperwork for BEP update done onsite; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 03/05/2020
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Re-inspection following routine inspection on 01/09/2020.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 03/09/2016
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 03/23/2016

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Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

RTC; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 03/23/2016
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: APSA
Eval Source: CERS
Eval Notes:

RTC; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 03/05/2020
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

Re-inspection following inspection on 01/09/2020.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 03/23/2016
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

RTC; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 09/02/2015
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 09/03/2015
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

Report Delivery and explanation; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 03/09/2016

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Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: APSA
Eval Source: CERS
Eval Notes:

Eval Date: 01/09/2020
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: APSA
Eval Source: CERS
Eval Notes:

Eval Date: 03/09/2016
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

Eval Date: 09/03/2015
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Report Delivery and explanation; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 08/29/2018
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 01/09/2020
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Facility is a trucking maintenance yard for a sand and gravel supply company. Hazardous materials stored onsite include diesel, compressed gases, and various types of oil.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Affiliations

Affil Type Desc: Identification Signer
Entity Name: Tracy F LaPaglia
Entity Title: CFO

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Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 26227 Sherman Rd
City: Romoland
State: CA
Country:
Zip Code: 92585
Phone:

Affil Type Desc: Property Owner
Entity Name: North Cpunty Sand & Gravel. Com
Entity Title:
Address: 26227 Sherman Rd
City: Romoland
State: CA
Country: United States
Zip Code: 92585
Phone: (951) 928-2881

Affil Type Desc: Document Preparer
Entity Name: Tracy F LaPaglia
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Affil Type Desc: Operator
Entity Name: North County Sand & Gravel, Inc
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (951) 928-2881

Affil Type Desc: Environmental Contact
Entity Name: Michael J LaPaglia, V
Entity Title:
Address: 26227 Sherman Rd
City: Romoland
State: CA
Country:
Zip Code: 92585
Phone:

Affil Type Desc: Legal Owner
Entity Name: North County Sand & Gravel

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Entity Title:	
Address:	26227 Sherman Rd
City:	Romoland
State:	CA
Country:	United States
Zip Code:	92585
Phone:	(951) 928-2881
Affil Type Desc:	Parent Corporation
Entity Name:	North County Sand & Gravel
Entity Title:	
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
2	10 of 10	N	0.00 / 0.00	1,431.48 / 0	NORTH COUNTY SAND & GRAVEL INC 26227 SHERMAN RD MENIFEE CA 92585-9223	RCRA NON GEN

EPA Handler ID:	CAL000320058
Gen Status Universe:	No Report
Contact Name:	MICHAEL LAPAGLIA IV
Contact Address:	26227 SHERMAN RD , , MENIFEE , CA, 92585-9223 ,
Contact Phone No and Ext:	951-453-1370
Contact Email:	MICHAEL@NORTHCOUNTYSANDANDGRAVEL.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20070525
Location Latitude:	33.740595
Location Longitude:	-117.180468

Violation/Evaluation Summary

Note:	NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20070525
Handler Name:	NORTH COUNTY SAND & GRAVEL INC

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	26227 SHERMAN RD
Name:	MICHAEL LAPAGLIA IV	**Street 2:**	
Date Became Current:		**City:**	MENIFEE
Date Ended Current:		**State:**	CA
Phone:	951-453-1370	**Country:**	
Source Type:	Implementer	**Zip Code:**	92585-9223

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Other	**Street 1:**	26227 SHERMAN RD
Name:	NORTH COUNTY SAND & GRAVEL INC	**Street 2:**	
Date Became Current:		**City:**	MENIFEE
Date Ended Current:		**State:**	CA
Phone:	951-928-2881	**Country:**	
Source Type:	Implementer	**Zip Code:**	92585-9223

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	1 of 12	N	0.01 / 68.99	1,431.48 / 0	JS COLE COMPANY 26105 SHERMAN RD MENIFEE CA 92585	HAZNET

SIC Code:	9999	**Mailing City:**	NOVATO
NAICS Code:	99999	**Mailing State:**	CA
EPA ID:	CAL000403107	**Mailing Zip:**	949485368
Create Date:	12/17/2014	**Region Code:**	4
Fac Act Ind:	Yes	**Owner Name:**	JS COLE COMPANY
Inact Date:		**Owner Addr 1:**	PO BOX 5368
County Code:	33	**Owner Addr 2:**	
County Name:	Riverside	**Owner City:**	NOVATO
Mail Name:		**Owner State:**	CA
Mailing Addr 1:	PO BOX 5368	**Owner Zip:**	949485368
Mailing Addr 2:		**Owner Phone:**	8887945232
Owner Fax:	4158834105		

Contact Information

--	--
Contact Name:	MAY WHITAKER
Street Address 1:	PO BOX 5368
Street Address 2:	
City:	NOVATO
State:	CA
Zip:	94948
Phone:	4158921827
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	2 of 12	N	0.01 / 68.99	1,431.48 / 0	PRESTIGE GUNITE OF CALIFORNIA 26105 SHERMAN RD ROMOLAND CA 92585	HAZNET

SIC Code:	1771	**Mailing City:**	ROMOLAND
NAICS Code:	23571	**Mailing State:**	CA
EPA ID:	CAL000312289	**Mailing Zip:**	92585
Create Date:	10/5/2006 9:17:03 AM	**Region Code:**	4
Fac Act Ind:	No	**Owner Name:**	ROMOLAND COMMERCIAL INVESTORS
Inact Date:	9/19/2007	**Owner Addr 1:**	26105 SHERMAN RD
County Code:	33	**Owner Addr 2:**	
County Name:	Riverside	**Owner City:**	ROMOLAND
Mail Name:		**Owner State:**	CA
Mailing Addr 1:	26105 SHERMAN RD	**Owner Zip:**	92585
Mailing Addr 2:		**Owner Phone:**	9512769096

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Owner Fax:

Contact Information

--	--
Contact Name:	KAREN VAN DIEN
Street Address 1:	3655 PLACENTIA LN LOT 15
Street Address 2:	
City:	RIVERSIDE
State:	CA
Zip:	92501
Phone:	9512769096
--	--
--	--

Tanner Information

--	--
Generator EPA ID:	CAL000312289
Generator County Code:	33
Generator County:	Riverside
TSD EPA ID:	CAD982444481
TSD County Code:	36
TSD County:	San Bernardino
State Waste Code:	352
State Waste Code Desc.:	Other organic solids
Method Code:	H141
Method Description:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	1.2
Year:	2007
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	3 of 12	N	0.01 / 68.99	1,431.48 / 0	PACIFIC READY MIX INC 26105 SHERMAN RD ROMOLAND CA 92585	HAZNET

SIC Code:	3273	**Mailing City:**	ANAHEIM
NAICS Code:	32732	**Mailing State:**	CA
EPA ID:	CAL000340699	**Mailing Zip:**	928021451
Create Date:	2/18/2009 4:13:05 PM	**Region Code:**	4
Fac Act Ind:	No	**Owner Name:**	PACIFIC READY MIX INC
Inact Date:	6/30/2011	**Owner Addr 1:**	500 S WALNUT ST
County Code:	33	**Owner Addr 2:**	
County Name:	Riverside	**Owner City:**	ANAHEIM
Mail Name:		**Owner State:**	CA
Mailing Addr 1:	500 S WALNUT ST	**Owner Zip:**	928021451
Mailing Addr 2:		**Owner Phone:**	7146085926
Owner Fax:	7143698332		

Contact Information

--	--
Contact Name:	RICHARD PIERSON
Street Address 1:	500 S WALNUT ST
Street Address 2:	
City:	ANAHEIM
State:	CA
Zip:	928020000
Phone:	7149443066
--	--
--	--

Tanner Information

--	--
Generator EPA ID:	CAL000340699
Generator County Code:	33
Generator County:	Riverside
TSD EPA ID:	CAD981696420
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	223
State Waste Code Desc.:	Unspecified oil-containing waste

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Method Code:	H141
Method Description:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.31275
Year:	2010
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	4 of 12	N	0.01 / 68.99	1,431.48 / 0	POKRAJAC CORPORATION 26105 SHERMAN RD MENIFEE CA 92584	HAZNET

SIC Code:	9999	**Mailing City:**	SAN JACINTO
NAICS Code:	99999	**Mailing State:**	CA
EPA ID:	CAL000387210	**Mailing Zip:**	925822073
Create Date:	7/8/2013 11:19:50 AM	**Region Code:**	4
Fac Act Ind:	Yes	**Owner Name:**	POKRAJAC CORP
Inact Date:		**Owner Addr 1:**	1953 N WARREN RD
County Code:	33	**Owner Addr 2:**	
County Name:	Riverside	**Owner City:**	SAN JACINTO
Mail Name:		**Owner State:**	CA
Mailing Addr 1:	1953 N WARREN RD	**Owner Zip:**	925822073
Mailing Addr 2:		**Owner Phone:**	9516544494
Owner Fax:	9516546880		

Contact Information

--	--
Contact Name:	CORI POKRAJAC
Street Address 1:	1953 N WARREN RD
Street Address 2:	
City:	SAN JACINTO
State:	CA
Zip:	92582
Phone:	9516544494
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	5 of 12	N	0.01 / 68.99	1,431.48 / 0	ROMOLAND COMMERCIAL INVESTORS 26105 SHERMAN RD ROMOLAND CA 925859249	HAZNET

SIC Code:		**Mailing City:**	RIVERSIDE
NAICS Code:		**Mailing State:**	CA
EPA ID:	CAC002665992	**Mailing Zip:**	925037227
Create Date:	4/28/2011	**Region Code:**	4
Fac Act Ind:	No	**Owner Name:**	ROMOLAND COMMERCIAL INVESTORS
Inact Date:	10/26/2011	**Owner Addr 1:**	14365 QUAILRIDGE DR
County Code:	33	**Owner Addr 2:**	
County Name:	Riverside	**Owner City:**	RIVERSIDE
Mail Name:		**Owner State:**	CA
Mailing Addr 1:	14365 QUAILRIDGE DR	**Owner Zip:**	925037227
Mailing Addr 2:		**Owner Phone:**	9517806895
Owner Fax:			

Contact Information

--	--
Contact Name:	CARL PAGEL
Street Address 1:	14365 QUAILRIDGE DR
Street Address 2:	
City:	RIVERSIDE
State:	CA
Zip:	925037227
Phone:	9517806895
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	6 of 12	N	0.01 / 68.99	1,431.48 / 0	PRESTIGE GUNITE OF CALIFORNIA INC	HAZNET

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
					26105 SHERMAN RD ROMOLAND CA 925859249	

SIC Code:	9999	**Mailing City:**	RIVERSIDE
NAICS Code:	99999	**Mailing State:**	CA
EPA ID:	CAL000325446	**Mailing Zip:**	925049580
Create Date:	10/3/2007 1:46:35 PM	**Region Code:**	4
Fac Act Ind:	No	**Owner Name:**	PRESTIGE GUNITE OF CALIFORNIA INC
Inact Date:	6/30/2010	**Owner Addr 1:**	26105 SHERMAN RD
County Code:	33	**Owner Addr 2:**	
County Name:	Riverside	**Owner City:**	ROMOLAND
Mail Name:		**Owner State:**	CA
Mailing Addr 1:	18300 WOOD EDGE LN	**Owner Zip:**	925859249
Mailing Addr 2:		**Owner Phone:**	9519289810
Owner Fax:	9519289860		

Contact Information	
--	--
Contact Name:	JAMES ROGERS
Street Address 1:	26105 SHERMAN RD
Street Address 2:	
City:	ROMOLAND
State:	CA
Zip:	925859249
Phone:	9582079349
--	--
--	--
Tanner Information	
--	--
Generator EPA ID:	CAL000325446
Generator County Code:	33
Generator County:	Riverside
TSD EPA ID:	CAD982444481
TSD County Code:	36
TSD County:	San Bernardino
State Waste Code:	352
State Waste Code Desc.:	Other organic solids
Method Code:	H141
Method Description:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.175
Year:	2007
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	7 of 12	N	0.01 / 68.99	1,431.48 / 0	SUMMIT EQUIPMENT RENTALS 26105 SHERMAN RD MENIFEE CA 92586	RCRA NON GEN

EPA Handler ID:	CAL000439231
Gen Status Universe:	No Report
Contact Name:	ROBERT KUSHNER
Contact Address:	26105 SHERMAN RD , , MENIFEE , CA, 92586 ,
Contact Phone No and Ext:	951-232-5994
Contact Email:	ROBERT@SUMMITRENTALS.NET
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20180919
Location Latitude:	33.741639
Location Longitude:	-117.180501

Violation/Evaluation Summary

Note:	NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20180919
Handler Name:	SUMMIT EQUIPMENT RENTALS
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	26105 SHERMAN RD
Name:	ROBERT KUSHNER	***Street 2:***	
Date Became Current:		***City:***	MENIFEE
Date Ended Current:		***State:***	CA
Phone:	951-232-5994	***Country:***	
Source Type:	Implementer	***Zip Code:***	92586
Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	30830 STERN DR
Name:	ROBERT KUSHER	***Street 2:***	
Date Became Current:		***City:***	MENIFEE
Date Ended Current:		***State:***	CA
Phone:	951-232-5994	***Country:***	
Source Type:	Implementer	***Zip Code:***	92584

3	***8 of 12***	***N***	***0.01 / 68.99***	***1,431.48 / 0***	***POKRAJAC CORPORATION 26105 SHERMAN RD MENIFEE CA 92584***	***RCRA NON GEN***

EPA Handler ID:	CAL000387210
Gen Status Universe:	No Report
Contact Name:	CORI POKRAJAC
Contact Address:	1953 N WARREN RD , , SAN JACINTO , CA, 92582 ,
Contact Phone No and Ext:	951-654-4494
Contact Email:	CORIPC@MSN.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20130708
Location Latitude:	33.741639
Location Longitude:	-117.180501

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20130708
Handler Name:	POKRAJAC CORPORATION
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	1953 N WARREN RD
Name:	POKRAJAC CORP	***Street 2:***	
Date Became Current:		***City:***	SAN JACINTO
Date Ended Current:		***State:***	CA
Phone:	951-654-4494	***Country:***	
Source Type:	Implementer	***Zip Code:***	92582-2073
Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	1953 N WARREN RD
Name:	CORI POKRAJAC	***Street 2:***	
Date Became Current:		***City:***	SAN JACINTO
Date Ended Current:		***State:***	CA
Phone:	951-654-4494	***Country:***	
Source Type:	Implementer	***Zip Code:***	92582

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	9 of 12	N	0.01 / 68.99	1,431.48 / 0	SUMMIT EQUIPMENT RENTALS 26105 SHERMAN RD MENIFEE CA 92586	FINDS/FRS

Registry ID:	110070485848
FIPS Code:	06065
HUC Code:	
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	
Create Date:	03-JAN-19
Update Date:	
Interest Types:	OTHER HAZARDOUS WASTE ACTIVITIES
SIC Codes:	

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

SIC Code Descriptions:
NAICS Codes: 811111
NAICS Code Descriptions: GENERAL AUTOMOTIVE REPAIR.
Conveyor:
Federal Facility Code:
Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No:
Census Block Code:
EPA Region Code: 09
County Name: RIVERSIDE
US/Mexico Border Ind:
Latitude:
Longitude:
Reference Point:
Coord Collection Method:
Accuracy Value:
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110070485848
Program Acronyms:

RCRAINFO:CAL000439231

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	10 of 12	N	0.01 / 68.99	1,431.48 / 0	POKRAJAC CORPORATION 26105 SHERMAN RD MENIFEE CA 92584	FINDS/FRS

Registry ID: 110070414106
FIPS Code: 06065
HUC Code:
Site Type Name: STATIONARY
Location Description:
Supplemental Location:
Create Date: 31-DEC-18
Update Date:
Interest Types: OTHER HAZARDOUS WASTE ACTIVITIES
SIC Codes:
SIC Code Descriptions:
NAICS Codes:
NAICS Code Descriptions:
Conveyor:
Federal Facility Code:
Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No:
Census Block Code:
EPA Region Code: 09
County Name: RIVERSIDE
US/Mexico Border Ind:
Latitude:
Longitude:
Reference Point:
Coord Collection Method:
Accuracy Value:
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110070414106
Program Acronyms:

RCRAINFO:CAL000387210

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	11 of 12	N	0.01 / 68.99	1,431.48 / 0	PRO STRUCTURAL INC 26105 SHERMAN RD 2ND FLR MENIFEE CA 92585	RCRA NON GEN

EPA Handler ID: CAL000442903
Gen Status Universe: No Report
Contact Name: HOLLY YOWELL
Contact Address: 29190 , RIVERSIDE DR , , LAKE ELSINORE , CA, 92530 , US
Contact Phone No and Ext: 951-303-3835
Contact Email: HOLLYY@PROSTRUCTURALINC.COM
Contact Country: US
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20210706
Location Latitude: 33.741599
Location Longitude: -117.180471

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20190131
Handler Name: PRO STRUCTURAL INC
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Hazardous Waste Handler Details

Sequence No: 2
Receive Date: 20210706
Handler Name: PRO STRUCTURAL INC
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Other
Street No:
Street 1: 26105 SHERMAN RD 2ND FLR

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Name:	ROBERT YOWELL	**Street 2:**	
Date Became Current:		**City:**	MENIFEE
Date Ended Current:		**State:**	CA
Phone:	951-587-1439	**Country:**	
Source Type:	Implementer	**Zip Code:**	92585
Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	26105 SHERMAN RD 2ND FLR
Name:	STEVEN BULLOCK	**Street 2:**	
Date Became Current:		**City:**	MENIFEE
Date Ended Current:		**State:**	CA
Phone:	951-303-3835	**Country:**	
Source Type:	Implementer	**Zip Code:**	92585
Owner/Operator Ind:	Current Operator	**Street No:**	29190
Type:	Other	**Street 1:**	RIVERSIDE DR
Name:	PRO STRUCTURAL INC	**Street 2:**	
Date Became Current:		**City:**	LAKE ELSINORE
Date Ended Current:		**State:**	CA
Phone:	951-303-3835	**Country:**	US
Source Type:	Implementer	**Zip Code:**	92530

Historical Handler Details

Receive Dt:	20190131
Generator Code Description:	Not a Generator, Verified
Handler Name:	PRO STRUCTURAL INC

3	*12 of 12*	*N*	*0.01 / 68.99*	*1,431.48 / 0*	***PRO STRUCTURAL INC 26105 SHERMAN RD 2ND FLR MENIFEE CA 92585***	***FINDS/FRS***

Registry ID:	110070539831
FIPS Code:	06065
HUC Code:	
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	
Create Date:	19-APR-19
Update Date:	
Interest Types:	OTHER HAZARDOUS WASTE ACTIVITIES
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	238140
NAICS Code Descriptions:	MASONRY CONTRACTORS.
Conveyor:	
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	
Census Block Code:	
EPA Region Code:	09
County Name:	RIVERSIDE
US/Mexico Border Ind:	
Latitude:	
Longitude:	
Reference Point:	
Coord Collection Method:	
Accuracy Value:	
Datum:	NAD83
Source:	
Facility Detail Rprt URL:	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110070539831
Program Acronyms:	

RCRAINFO:CAL000442903

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
4	1 of 1	NNE	0.12 / 626.07	1,432.48 / 1	Tire Stop & Recycling 27491 Ethanac Rd Sun City CA 92585	DELISTED COUNTY

Original Source Facility ID:
Original Source Name: Riverside County Disclosure Facility List
Record Date: 10-JUN-2015

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
5	1 of 6	N	0.12 / 630.28	1,431.48 / 0	Chaney's Automotive 27411 Ethanac Rd Romoland CA	LOP RIVERSIDE

Site ID: 93620
Status Code: 9
Status Desc: CLOSED/ACTION COMPLETED
Case Type Code: S
Case Type Desc: SOIL ONLY IS IMPACTED
Closed Code: Y
Closed Desc: CLOSED SITE
Employee: Malloy

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
5	2 of 6	N	0.12 / 630.28	1,431.48 / 0	Chaney's Auto Repair 27411 Ethanac Rd Romoland CA 92585	DELISTED COUNTY

Original Source Facility ID:
Original Source Name: Riverside County Disclosure Facility List
Record Date: 10-JUN-2015

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
5	3 of 6	N	0.12 / 630.28	1,431.48 / 0	CHANEY'S AUTOMOTIVE 27411 ETHANAC ROAD ROMOLAND CA 92580	LUST

Global ID: T0606500332
Status: COMPLETED - CASE CLOSED
Status Date: 2000-09-29 00:00:00
Case Type: LUST CLEANUP SITE
Date Source: LUST Cleanup Sites & Military UST Site from GeoTracker Project Search Results Export; LUST Cleanup Sites & Military UST Site from GeoTracker Cleanup Sites Data Download
County: RIVERSIDE
Latitude: 33.7424785024374
Longitude: -117.182165506781

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Facilities Detail

RB Case No: 083302297T
Local Case No: 93620
Begin Date: 9/30/1992
Lead Agency: RIVERSIDE COUNTY LOP
Local Agency: RIVERSIDE COUNTY LOP
CUF Case: NO
CalEnvScreen Score: 66-70%
EPA Region: 9
Qty Rlsd Gallons:
Potential Media of Concern: Aquifer used for drinking water supply
How Discovered Description:
Calwater Watershed Name: San Jacinto Valley - Perris - Perris Valley (802.11)
DWR GW Subbasin Name: San Jacinto (8-005)
Disadvantaged Community:
Coordinate Source: Google Map Move
Discharge Cause: Unknown
Discharge Source: Other
File Location: Local Agency Warehouse
Site History:
Potential COC: Waste Oil / Motor / Hydraulic / Lubricating
How Discovered: Tank Closure
Stop Method: Close and Remove Tank
Stop Description:
Case Worker: RIV
Military DoD Site: No
Leak Reported Dt: 1992-10-02 00:00:00
No Further Action Dt: 2000-09-29 00:00:00

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LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Activity

Action Type: ENFORCEMENT
Date : 9/29/2000
Action: Closure/No Further Action Letter - #Riv Co Closure

Action Type: ENFORCEMENT
Date : 9/28/2000
Action: File review - #RCDEH Upload Site File 4/21/2010

Action Type: Other
Date : 10/2/1992
Action: Leak Reported

Action Type: Other
Date : 9/30/1992
Action: Leak Stopped

Action Type: Other
Date : 9/30/1992
Action: Leak Discovery

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Contacts

Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP
City: RIVERSIDE
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
Email:
Phone No: 9519558980

Contact Type: Regional Board Caseworker
Contact Name: VALERIE JAHN-BULL
City: RIVERSIDE
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
Email: valerie.jahn-bull@waterboards.ca.gov
Phone No: 9517824903

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Status History

Status: Completed - Case Closed
Status Date: 9/29/2000

Status: Open - Site Assessment
Status Date: 7/9/1993

Status: Open - Case Begin Date
Status Date: 9/30/1992

Status: Open - Site Assessment
Status Date: 9/30/1992

LUST Sites from GeoTracker Search - Regulatory Profile

Site Facility Name: CHANEY'S AUTOMOTIVE
Site Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Project Status:
WDR Place Type:
WDR File:
WDR Order:
CUF Priority Assig:
CUF Amount Paid:
Potential COC: WASTE OIL / MOTOR / HYDRAULIC / LUBRICATING
Facility Type:
Composting Method:
Address: 27411 ETHANAC ROAD
City: ROMOLAND
Zip: 92580
County: RIVERSIDE
CUF Claim:
File Location: LOCAL AGENCY WAREHOUSE
Designated Beneficial Use: MUN, AGR, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
Project Oversight Agencies:
Report Link: https://geotracker.waterboards.ca.gov/profile_report?global_id=T0606500332

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Cleanup Status Detail:	COMPLETED - CASE CLOSED AS OF 9/29/2000
Cleanup History Link:	https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0606500332&tabname=regulatoryhistory
Potential Media of Concern:	AQUIFER USED FOR DRINKING WATER SUPPLY
User Defined Beneficial Use:	
DWR GW Sub Basin:	San Jacinto (8-005)
Calwater Watershed Name:	San Jacinto Valley - Perris - Perris Valley (802.11)
Post Closure Site Management:	NOTIFY PRIOR TO CHANGE IN LAND USE
Future Land Use:	UNKNOWN
Cleanup Oversight Agencies:	RIVERSIDE COUNTY LOP (LEAD) - CASE #: 93620 CASEWORKER: Riverside County LOP SANTA ANA RWQCB (REGION 8) - CASE #: 083302297T CASEWORKER: VALERIE JAHN-BULL
Gndwater Monitoring Freque:	
Designated Beneficial Use Desc:	Municipal and Domestic Supply, Agricultural Supply, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
Site History:	

No site history available

LUST Sites from GeoTracker Search - Cleanup Status History

Status:	Completed - Case Closed
Date :	9/29/2000
Status:	Open - Site Assessment
Date :	7/9/1993
Status:	Open - Site Assessment
Date :	9/30/1992
Status:	Open - Case Begin Date
Date :	9/30/1992

Sites from GeoTracker Search - Regulatory Activities

Action Type:	Other Regulatory Actions
Action Date:	9/29/2000
Received Issue Date:	9/29/2000
Action:	Closure/No Further Action Letter - #Riv Co Closure
Doc Link:	https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500332&enforcement_id=6006332&temptable=ENFORCEMENT
Title Description Comments:	

Riv Co Site Closure

Action Type:	Other Regulatory Actions
Action Date:	9/28/2000
Received Issue Date:	9/28/2000
Action:	File review - #RCDEH Upload Site File 4/21/2010
Doc Link:	https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500332&enforcement_id=6048839&temptable=ENFORCEMENT
Title Description Comments:	

RCDEH Upload Site File 4/21/2010

Action Type:	Leak Action
Action Date:	9/30/1992
Received Issue Date:	
Action:	Leak Discovery
Doc Link:	
Title Description Comments:	

Action Type:	Leak Action
Action Date:	10/2/1992

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Received Issue Date:
Action: Leak Reported
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 9/30/1992
Received Issue Date:
Action: Leak Stopped
Doc Link:
Title Description Comments:

Sites from GeoTracker Search - Documents

Document Type: Site Documents
Document Date: 9/29/2000
Type: CLOSURE/NO FURTHER ACTION LETTER
Title: RIV CO SITE CLOSURE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500332&enforcement_id=6006332
Size :
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Submitted:

Document Type: Site Documents
Document Date: 9/28/2000
Type: FILE REVIEW
Title: RCDEH UPLOAD SITE FILE 4/21/2010
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500332&enforcement_id=6048839
Size :
Submitted By: LINDA SHURLOW (REGULATOR)
Submitted:

5	*4 of 6*	*N*	*0.12 / 630.28*	*1,431.48 / 0*	***Long's Automotive*** ***27411 Ethanac Rd*** ***Menifee CA 92585***	***HWG*** ***RIVERSIDE***

5	*5 of 6*	*N*	*0.12 / 630.28*	*1,431.48 / 0*	***LONGS ENTERPRISES INC DBA*** ***LONGS AUTOMOTIVE*** ***27411 ETHANAC RD*** ***SUN CITY CA 92585***	***RCRA*** ***NON GEN***

EPA Handler ID: CAL000409435
Gen Status Universe: No Report
Contact Name: BRAD LONG
Contact Address: 26100 FARMINGTON RD , , MENIFEE , CA, 92584 ,
Contact Phone No and Ext: 951-928-1966
Contact Email: RRADBRAD@VERIZON.NET
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20150819
Location Latitude: 33.742902
Location Longitude: -117.182

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No

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Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20150819
Handler Name:	LONGS ENTERPRISES INC DBA LONGS AUTOMOTIVE
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	26100 FARMINGTON RD
Name:	BRAD LONG	**Street 2:**	
Date Became Current:		**City:**	MENIFEE
Date Ended Current:		**State:**	CA
Phone:	951-928-1966	**Country:**	
Source Type:	Implementer	**Zip Code:**	92584

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Other	**Street 1:**	26100 FARMINGTON RD
Name:	BRAD LONG	**Street 2:**	
Date Became Current:		**City:**	MENIFEE
Date Ended Current:		**State:**	CA
Phone:	951-928-1966	**Country:**	
Source Type:	Implementer	**Zip Code:**	92584-9268

5	6 of 6	N	0.12 / 630.28	1,431.48 / 0	Long's Automotive 27411 ETHANAC RD ROMOLAND CA 92585	CERS HAZ

Site ID:	565317
Latitude:	33.742460
Longitude:	-117.181960
County:	

Regulated Programs

EI ID:	10316920	**EI Description:**	Hazardous Waste Generator

Violations

Violation Date:	04/08/2015	**Violation Source:**	CERS
Violation Program:	HMRRP	**Violation Division:**	Riverside County Department of Env Health
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)		
Violation Notes:			

Returned to compliance on 05/08/2015.

Violation Description:

Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above

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reportable quantities.

Violations

Violation Date: 04/08/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 05/08/2015.

Violation Description:

Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.

Violations

Violation Date: 04/08/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 05/08/2015.

Violation Description:

Failure to complete and electronically submit a site map with all required content.

Violations

Violation Date: 04/08/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Notes:

Returned to compliance on 05/08/2015.

Violation Description:

Failure to obtain and/or maintain an Active EPA ID.

Violations

Violation Date: 04/08/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25508.1(a)-(e) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(a)-(e)
Violation Notes:

Returned to compliance on 05/08/2015.

Violation Description:

Failure to electronically update business plan within 30 days of any one of the following events:
A 100 percent or more increase in the quantity of a previously disclosed material.
Any handling of a previously undisclosed hazardous materials at or above reportable quantities.
A change of business address, business ownership, or business name.

Violations

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Violation Date: 04/08/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25508.1(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(f)
Violation Notes:

Returned to compliance on 05/08/2015.

Violation Description:

Failure to electronically update the business plan within 30 days of a substantial change.

Violations

Violation Date: 04/08/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.32 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.32
Violation Notes:

Returned to compliance on 05/08/2015.

Violation Description:

Failure of the facility to maintain the following emergency equipment or equivalents:
1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;
2) A device, such as a telephone (immediately available at the scene of Operations/ Maintenance) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;
3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and
4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

Violations

Violation Date: 04/08/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25508(d) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(d)
Violation Notes:

Returned to compliance on 05/08/2015.

Violation Description:

Failure to complete and/or electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.

Violations

Violation Date: 04/08/2015 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.33 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.33
Violation Notes:

Returned to compliance on 05/08/2015.

Violation Description:

Failure of the facility to test and maintain all communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment.

Violations

Violation Date: 04/08/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health

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Citation: 19 CCR 6.95 25508(a)(1) - California Code of Regulations, Title 19, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 05/08/2015.

Violation Description:

Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.

Violations

Violation Date: 04/08/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Notes:

Returned to compliance on 05/08/2015.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete, accurate, and up-to-date.

Violations

Violation Date: 04/08/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Notes:

Returned to compliance on 05/08/2015.

Violation Description:

Business Plan Program - Operations/Maintenance - General

Violations

Violation Date: 04/08/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Notes:

Returned to compliance on 05/08/2015.

Violation Description:

Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.

Enforcements

Enf Action Date: 04/08/2015 ***Enf Action Program:*** HW
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside County Department of Env Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 04/08/2015 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside County Department of Env Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

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Evaluations

Eval Date: 05/08/2015
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

RTC; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 04/08/2015
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 04/08/2015
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

Eval Date: 02/09/2016
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

Eval Date: 05/08/2015
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

RTC; Note: data in [EVAL Notes] field for some records is truncated from the source.

Affiliations

Affil Type Desc: Document Preparer
Entity Name: Riversie County Proxy Submittal
Entity Title:
Address:
City:
State:
Country:
Zip Code:

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Phone:

Affil Type Desc: Operator
Entity Name: Long's Automotive
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (951) 928-1966

Affil Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 27411 Ethanac Rd
City: Menifee
State: CA
Country:
Zip Code: 92585
Phone:

Affil Type Desc: Environmental Contact
Entity Name: 951 928-1966
Entity Title:
Address: 27411 Ethanac Rd
City: Menifee
State: CA
Country:
Zip Code: 92585
Phone:

Affil Type Desc: Legal Owner
Entity Name: Long Enterprises Inc
Entity Title:
Address: 27411 Ethanac Rd
City: Menifee
State: CA
Country: United States
Zip Code: 92585
Phone: (951) 928-1966

Affil Type Desc: Parent Corporation
Entity Name: Long's Automotive
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

6	***1 of 1***	***NW***	***0.16 / 826.81***	***1,429.48 / -2***	***GENCORP AUTO BODY SHOP 27271 ETHANAC RD MENIFEE CA 92585***	***RCRA NON GEN***

EPA Handler ID: CAL000414411
Gen Status Universe: No Report

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Contact Name:	KENNETH CANDRAY
Contact Address:	13526 , SOMERGATE DR , MORENO VALLEY , CA, 92555-0000 ,
Contact Phone No and Ext:	951-526-6850
Contact Email:	INFO@GENCORPAUTOBODYSHOP.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20160218
Location Latitude:	
Location Longitude:	

Violation/Evaluation Summary

Note:	NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20160218
Handler Name:	GENCORP AUTO BODY SHOP
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	13526
Name:	KENNETH CANDRAY	***Street 2:***	SOMERGATE DR
Date Became Current:		***City:***	MORENO VALLEY
Date Ended Current:		***State:***	CA
Phone:	951-526-6850	***Country:***	
Source Type:	Implementer	***Zip Code:***	92555-0000
Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	13526
Name:	WILLIAM A SALVADOR	***Street 2:***	SOMERGATE DR
Date Became Current:		***City:***	MORENO VALLEY
Date Ended Current:		***State:***	CA
Phone:	951-534-2737	***Country:***	
Source Type:	Implementer	***Zip Code:***	92555-0000

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
7	1 of 5	NW	0.19 / 1,020.37	1,428.48 / -3	EMARRA INC DBA CHRIS SHELL 1765 ETHANAC RD PERRIS CA 92585	RCRA NON GEN

EPA Handler ID: CAL000442253
Gen Status Universe: No Report
Contact Name: ELIZABETH ALABBASI
Contact Address: 16810 VAN BUREN BLVD STE 200 , , RIVERSIDE , CA, 92504 ,
Contact Phone No and Ext: 951-780-1400
Contact Email: LIZ@ALABBASI.BIZ
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20190104
Location Latitude: 33.742978
Location Longitude: -117.187771

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20190104
Handler Name: EMARRA INC DBA CHRIS SHELL
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Other
Name: ELIZABETH ALABBASI
Date Became Current:
Date Ended Current:
Phone: 951-780-1400
Source Type: Implementer
Street No:
Street 1: 16810 VAN BUREN BLVD STE 200
Street 2:
City: RIVERSIDE
State: CA
Country:
Zip Code: 92504

Owner/Operator Ind: Current Operator
Type: Other
Name: ELIZABETH ALABBASI
Date Became Current:
Street No:
Street 1: 16810 VAN BUREN BLVD STE 200
Street 2:
City: RIVERSIDE

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Date Ended Current: **State:** CA
Phone: 951-780-1400 **Country:**
Source Type: Implementer **Zip Code:** 92504

7 **2 of 5** **NW** **0.19 / 1,020.37** **1,428.48 / -3** **EMARRA, INC**
1765 ETHANAC RD
PERRIS CA 92570 **CERS TANK**

Site ID: 521879 **Latitude:** 33.743010
Longitude: -117.196930

Regulated Programs

EI ID: 10790992
EI Description: Chemical Storage Facilities

EI ID: 10790992
EI Description: Hazardous Waste Generator

EI ID: 10790992
EI Description: Underground Storage Tank

Violations

Violation Date: 04/22/2019 **Violation Source:** CERS
Violation Program: UST **Violation Division:** Riverside County Department of Env Health
Citation: HSC 6.7 25284, 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25284, 25286
Violation Notes:

Returned to compliance on 06/13/2019.

Violation Description:

Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.

Violations

Violation Date: 04/22/2019 **Violation Source:** CERS
Violation Program: UST **Violation Division:** Riverside County Department of Env Health
Citation: 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712
Violation Notes:

Returned to compliance on 06/13/2019.

Violation Description:

Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system.

Violations

Violation Date: 04/22/2019 **Violation Source:** CERS
Violation Program: UST **Violation Division:** Riverside County Department of Env Health
Citation: HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Notes:

Returned to compliance on 06/13/2019.

Violation Description:

Failure to obtain a valid permit to operate from the UPA including but not limited to unpaid permit fees.

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Violations

Violation Date: 04/15/2021 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712
Violation Notes:

Violation Description:

Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system.

Violations

Violation Date: 04/22/2019 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2641(h) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(h)
Violation Notes:

Returned to compliance on 06/13/2019.

Violation Description:

Failure to have an approved UST Monitoring Plan.

Violations

Violation Date: 04/14/2020 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25284, 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25284, 25286
Violation Notes:

Returned to compliance on 06/17/2020. OBSERVATION: Observed UST tank information pages for all three (3) tanks submitted in CERS to be inaccurate and/or missing information. Please reference CERS notes to correction the pages as needed. Each tank information page has different items to correct. CORRECTIVE ACTION: Owner/operator shall make the corrections noted in CERS to the UST tank information pages and re-submit updated forms in CERS.

Violation Description:

Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.

Violations

Violation Date: 02/27/2020 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 03/20/2020. OBSERVATION: The chemical inventory description page submitted for Carbon Dioxide (CO2) contained incorrect information. CO2 has a store pressure "Above Amient". Observed a liquified CO2 tank at the facility. The CO2 tank should be reported in gallons, not cubic feet and the physical state updated to "liquid" with the storage updated to "Tank Inside Building". The Propane should also be updated with a physical state of "liquid" and reported in gallons. CORRECTIVE ACTION: Owner/operator shall update the chemical inventory pages for CO2 and Propane and submit to the statewide information management system (e.g. CERS) at http://cers.calepa.ca.gov. Please refer to a current Safety Data Sheet (SDS) for guidance.

Violation Description:

Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violations

Violation Date: 04/22/2019 ***Violation Source:*** CERS

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Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Notes:

Returned to compliance on 06/13/2019.

Violation Description:

Failure to retain a copy of the permit to operate at the facility.

Evaluations

Eval Date: 04/22/2019
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Eval Date: 02/27/2020
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

This facility is a gas station with a convenience store and car wash. The facility has not generated any waste at this time. No waste pick-ups have occurred.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 04/14/2020
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Note: Based on how VR 208 sensors are installed in UDCs, owner should ensure sensors are not accidentally left raised up from bottom of the UDC.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 02/27/2020
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 04/22/2019
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

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Eval Date:	04/15/2021
Violations Found:	Yes
Eval General Type:	Compliance Evaluation Inspection
Eval Type:	Routine done by local agency
Eval Division:	Riverside County Department of Env Health
Eval Program:	UST
Eval Source:	CERS
Eval Notes:	

Affiliations

Affil Type Desc:	Environmental Contact
Entity Name:	Elizabeth Alabbasi
Entity Title:	
Address:	16810 VAN BUREN BLVD., SUITE 200
City:	RIVERSIDE
State:	CA
Country:	
Zip Code:	92504
Phone:	

Affil Type Desc:	Parent Corporation
Entity Name:	EMARRA, INC
Entity Title:	
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	

Affil Type Desc:	UST Tank Owner
Entity Name:	EMARRA, LP
Entity Title:	
Address:	764 W. RAMONA EXPRESSWAY
City:	PERRIS
State:	CA
Country:	United States
Zip Code:	92571
Phone:	(951) 776-9300

Affil Type Desc:	UST Tank Operator
Entity Name:	EMARRA, INC.
Entity Title:	
Address:	16810 VAN BUREN BLVD., SUITE 200
City:	RIVERSIDE
State:	CA
Country:	United States
Zip Code:	92504
Phone:	(951) 780-1400

Affil Type Desc:	Identification Signer
Entity Name:	Gregory Roberts
Entity Title:	CERS Agent
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	

Affil Type Desc:	Property Owner
Entity Name:	EMARRA, INC.
Entity Title:	
Address:	764 W. RAMONA EXPRESSWAY, SUITE C
City:	PERRIS
State:	CA

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Country:	United States
Zip Code:	92571
Phone:	(951) 776-9300
Affil Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	
Address:	1765 ETHANAC RD.
City:	PERRIS
State:	CA
Country:	
Zip Code:	92570
Phone:	
Affil Type Desc:	UST Property Owner Name
Entity Name:	EMARRA, LP
Entity Title:	
Address:	764 W. RAMONA EXPRESSWAY
City:	PERRIS
State:	CA
Country:	United States
Zip Code:	92571
Phone:	(951) 776-9300
Affil Type Desc:	Legal Owner
Entity Name:	EMARRA, INC.
Entity Title:	
Address:	764 W. RAMONA EXPRESSWAY, SUITE C
City:	PERRIS
State:	CA
Country:	United States
Zip Code:	92571
Phone:	(951) 776-9300
Affil Type Desc:	Operator
Entity Name:	EMARRA, INC
Entity Title:	
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	(951) 776-9300
Affil Type Desc:	CUPA District
Entity Name:	Riverside Cnty Env Health
Entity Title:	
Address:	4065 County Circle Drive, Room 104
City:	Riverside
State:	CA
Country:	
Zip Code:	92503
Phone:	(951) 358-5055
Affil Type Desc:	Document Preparer
Entity Name:	Gregory Roberts
Entity Title:	
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	

7	3 of 5	NW	0.19 / 1,020.37	1,428.48 / -3	**EMARRA, INC** **1765 Ethanac Rd** **PERRIS CA 92570**	UST

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Facility ID:
CERS ID: 10790992
County: Riverside
Permitting Agency: Riverside County Department of Environmental Health
Note: Information related to facilities can be searched on Geo Tracker Website: https://geotracker.waterboards.ca.gov/search
Site Facility Type: PERMITTED UNDERGROUND STORAGE TANK (UST)
Latitude: 33.74301
Longitude: -117.19693

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
7	4 of 5	NW	0.19 / 1,020.37	1,428.48 / -3	Emarra, Inc. 1765 Ethanac Rd Perris CA 92570	UST RIVERSIDE

No of Tanks: 3

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
7	5 of 5	NW	0.19 / 1,020.37	1,428.48 / -3	EMARRA, INC 1765 ETHANAC RD PERRIS CA 92570	EMISSIONS

2018 Toxic Data

Facility ID: 186364
Facility SIC Code: 5541
CO: 33
Air Basin: SC
District: SC
TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:

2019 Toxic Data

CO: 33
Air Basin: SC
Faccility ID: 186364
District: SC
Facility SIC Code: 5541
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:
TS:
Health Risk Asmt:
NonCncrChrnicHazInd:
NonCncrActeHazInd:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
8	1 of 1	ENE	0.30 / 1,560.37	1,439.48 / 8	Perris Yard 26245 DAWSON RD ROMOLAND CA 92585	DELISTED HAZ

Siteid: 56340
Latitude: 33.740100
Longitude: -117.174900
Original Source: CHAZ
Record Date: 20-OCT-2017

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
9	1 of 1	NNW	0.53 / 2,779.90	1,430.45 / -1	ROMALAND SUN CITY CA 92585	MINE

Mine ID: 91-33-0087
Mine Status: CLOSED - NEVER OPERATED
Primary Product: SAND AND GRAVEL
Other Products:
Las Code:
Rp No:
Report Type:
Owner City:

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Report Year:	2002	**Owner Country:**	
Acres Disturbed:		**Owner State:**	
Reclamation Status:	RECLAMATION NOT STARTED	**Owner Street:**	
Permit Acres:	13	**Owner Zip:**	
Finan Assur Mech:		**Operator City:**	
Fin Assur Cost Est:		**Operator Country:**	
Primary Product 1:		**Operator State:**	
Primary Prod Label:		**Operator Street:**	
Facility City:	SUN CITY	**Operator Zip:**	
Facility State:	CA	**Shape:**	
Facility Zip:	92585	**X:**	-13044788.96
Facility County:	RIVERSIDE	**Y:**	3995059.149
Facility Address:	RIVERSIDE COUNTY		
Owner:	GERMANN		
Permit No:	190		
Operation Type:	OPEN PIT		
Operator:	ASPHALT & CONCRETE RECYCLING, INC.		
Lead Agency:	County of Riverside		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
10	1 of 2	ENE	0.56 / 2,971.07	1,448.26 / 17	HIGH SCHOOL NO. 3 BRIGGS ROAD/PINACATE ROAD ROMOLAND CA 92585	SCH

Estor/EPA ID:	33010072	**Permit Renewal Lead:**	
Site Code:	404438	**Project Manager:**	
Nat Priority List:	NO	**Supervisor:**	JAVIER HINOJOSA
Acres:	60 ACRES	**Public Partici Spclst:**	
Special Program:		**Census Tract:**	6065042730
Funding:	SCHOOL DISTRICT	**County:**	RIVERSIDE
Assembly District:	67	**Latitude:**	33.744518
Senate District:	23	**Longitude:**	-117.171899
School District:	PERRIS UNION HIGH SCHOOL DISTRICT		
APN:	NONE SPECIFIED		
Cleanup Status:	NO FURTHER ACTION AS OF 3/19/2003		
Cleanup Oversight Agencies:	DTSC - LEAD AGENCY		
Site Type:	SCHOOL		
Office:	SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH		
Past Use that Caused Contam:	AGRICULTURAL - ROW CROPS		
Potential Media Affected:	SOIL		
Potential Contamin of Concern:			

ORGANOCHLORINE PESTICIDES (8081 OCPS) PETROLEUM POLYCHLORINATED BIPHENYLS (8082 PCBS) POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)

SITE HISTORY:

The approximately 60-acre site is surrounded predominantly by vacant or agricultural land. The site has been historically utilized for agricultural purposes, indicating the potential application of pesticides/chemicals.

Status:	NO FURTHER ACTION
Program Type:	SCHOOL INVESTIGATION
CalEnviroScreen Score:	66-70%
Summary Link:	https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=33010072

Completed Activities

Title:	Preliminary Endangerment Assessment Report
Title Link:	https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010072&doc_id=6003999
Area Name:	
Area Link:	
Sub Area:	
Sub Area Link:	
Document Type:	Preliminary Endangerment Assessment Report
Date Completed:	9/15/2004
Comments:	

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Title: Phase 1 Draft
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 3/2/2003
Comments: Phase 1 Draft

Title: * Workplan
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010072&doc_id=6004000
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: * Workplan
Date Completed: 12/29/2003
Comments:

Title: Environmental Oversight Agreement
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010072&enforcement_id=6003998
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Environmental Oversight Agreement
Date Completed: 3/19/2003
Comments:

---

10 | ***2 of 2*** | ***ENE*** | ***0.56 / 2,971.07*** | ***1,448.26 / 17*** | ***HIGH SCHOOL NO. 3 BRIGGS ROAD/PINACATE ROAD ROMOLAND CA 92585*** | ***ENVIROSTOR***

Estor/EPA ID: 33010072
Site Code: 404438
Nat Priority List: NO
APN: NONE SPECIFIED
Census Tract: 6065042730
Site Type: SCHOOL
Address Description: BRIGGS ROAD/PINACATE ROAD
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Special Program:
Funding: SCHOOL DISTRICT
Assembly District: 67
Senate District: 23
Permit Renewal Lead:
Public Partici Spclst:
Project Manager:
County: RIVERSIDE
Latitude: 33.744518
Longitude: -117.171899
Acres: 60 ACRES
Supervisor: JAVIER HINOJOSA
Cleanup Status: NO FURTHER ACTION AS OF 3/19/2003
Cleanup Oversight Agencies: DTSC - LEAD AGENCY
School District: PERRIS UNION HIGH SCHOOL DISTRICT
Past Use that Caused Contam: AGRICULTURAL - ROW CROPS
Potential Media Affected: SOIL
Site History:

The approximately 60-acre site is surrounded predominantly by vacant or agricultural land. The site has been historically utilized for agricultural purposes, indicating the potential application of pesticides/chemicals.

Potential Contamin of Concern:

ORGANOCHLORINE PESTICIDES (8081 OCPS) PETROLEUM POLYCHLORINATED BIPHENYLS (8082 PCBS) POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)

Status: NO FURTHER ACTION
Program Type: SCHOOL INVESTIGATION
CalEnviroScreen Score: 66-70%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=33010072

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Completed Activities

Title: * Workplan
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010072&doc_id=6004000
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: * Workplan
Date Completed: 12/29/2003
Comments:

Title: Phase 1 Draft
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 3/2/2003
Comments: Phase 1 Draft

Title: Environmental Oversight Agreement
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010072&enforcement_id=6003998
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Environmental Oversight Agreement
Date Completed: 3/19/2003
Comments:

Title: Preliminary Endangerment Assessment Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010072&doc_id=6003999
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Report
Date Completed: 9/15/2004
Comments:

11	*1 of 2*	*WSW*	*0.79 / 4,155.62*	*1,426.50 / -5*	***THE CLUB K-8 SCHOOL*** ***EVANS ROAD/NOVA LANE*** ***ROMOLAND CA 92586***	***SCH***

Estor/EPA ID: 33010067
Site Code: 404389
Nat Priority List: NO
Acres: 19.08 ACRES
Special Program:
Funding: SCHOOL DISTRICT
Assembly District: 67
Senate District: 23
Permit Renewal Lead:
Project Manager:
Supervisor: JAVIER HINOJOSA
Public Partici Spclst:
Census Tract: 6065042731
County: RIVERSIDE
Latitude: 33.7325790168242
Longitude: -117.194348865342
School District: ROMOLAND ELEMENTARY SCHOOL DISTRICT
APN: 331-080-008, 331-080-009, 331-080-010, 331-080-011
Cleanup Status: NO FURTHER ACTION AS OF 4/17/2003
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
Site Type: SCHOOL
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Past Use that Caused Contam: AGRICULTURAL - ROW CROPS
Potential Media Affected: SOIL
Potential Contamin of Concern:

DDE METALS NICKEL (SOLUBLE SALTS)

SITE HISTORY:

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The site has a history of being cultivated with sugar beet crops and alfalfa and grain until 1999. The site has been vacant and undeveloped since 1999.

Status: NO FURTHER ACTION
Program Type: SCHOOL INVESTIGATION
CalEnviroScreen Score: 56-60%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=33010067

Completed Activities

Title: Environmental Oversight Agreement
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010067&enforcement_id=6003969
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Environmental Oversight Agreement
Date Completed: 10/28/2002
Comments:

Title: Technical Memorandums
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Technical Report
Date Completed: 12/24/2002
Comments:

Title: Phase 1
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 9/27/2002
Comments:

Title: Preliminary Endangerment Assessment Report
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Report
Date Completed: 4/17/2003
Comments:

11	2 of 2	WSW	0.79 / 4,155.62	1,426.50 / -5	THE CLUB K-8 SCHOOL EVANS ROAD/NOVA LANE ROMOLAND CA 92586	ENVIROSTOR

Estor/EPA ID: 33010067
Site Code: 404389
Nat Priority List: NO
APN: 331-080-008, 331-080-009, 331-080-010, 331-080-011
Census Tract: 6065042731
Site Type: SCHOOL
Address Description: EVANS ROAD/NOVA LANE
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Special Program:
Funding: SCHOOL DISTRICT
Cleanup Status: NO FURTHER ACTION AS OF 4/17/2003

Assembly District: 67
Senate District: 23
Permit Renewal Lead:
Public Partici Spclst:
Project Manager:
County: RIVERSIDE
Latitude: 33.7325790168242
Longitude: -117.194348865342
Acres: 19.08 ACRES
Supervisor: JAVIER HINOJOSA

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Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
School District: ROMOLAND ELEMENTARY SCHOOL DISTRICT
Past Use that Caused Contam: AGRICULTURAL - ROW CROPS
Potential Media Affected: SOIL
Potential Contamin of Concern:

DDE METALS NICKEL (SOLUBLE SALTS)

Site History:

The site has a history of being cultivated with sugar beet crops and alfalfa and grain until 1999. The site has been vacant and undeveloped since 1999.

Status: NO FURTHER ACTION
Program Type: SCHOOL INVESTIGATION
CalEnviroScreen Score: 56-60%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=33010067

Completed Activities

Title: Technical Memorandums
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Technical Report
Date Completed: 12/24/2002
Comments:

Title: Environmental Oversight Agreement
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010067&enforcement_id=6003969
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Environmental Oversight Agreement
Date Completed: 10/28/2002
Comments:

Title: Phase 1
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 9/27/2002
Comments:

Title: Preliminary Endangerment Assessment Report
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Report
Date Completed: 4/17/2003
Comments:

12	*1 of 2*	*SSE*	*0.95 / 5,011.28*	*1,469.49 / 38*	***PROPOSED ELEMENTARY SCHOOL NO. 15 ROUSE ROAD/SHERMAN ROAD MENIFEE CA 92585***	***SCH***

Estor/EPA ID: 60001068
Site Code: 404827
Permit Renewal Lead:
Project Manager:

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Nat Priority List:	NO	**Supervisor:**	SHAHIR HADDAD
Acres:	12 ACRES	**Public Partici Spclst:**	
Special Program:		**Census Tract:**	6065042728
Funding:	SCHOOL DISTRICT	**County:**	RIVERSIDE
Assembly District:	67	**Latitude:**	33.7253
Senate District:	23	**Longitude:**	-117.1755

School District: MENIFEE UNION SCHOOL DISTRICT
APN: NONE SPECIFIED
Cleanup Status: NO ACTION REQUIRED AS OF 5/11/2009
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
Site Type: SCHOOL
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Past Use that Caused Contam: NONE
Potential Media Affected: UNDER INVESTIGATION
Potential Contamin of Concern:

UNDER INVESTIGATION

SITE HISTORY:

The Proposed School Site is vacant land that has never been developed, but historically was used for agricultural purposes, i.e., dry land grain (wheat, barley and safflower) farming.

Status: NO ACTION REQUIRED
Program Type: SCHOOL INVESTIGATION
CalEnviroScreen Score: 61-65%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60001068

Completed Activities

Title: Phase 1 Environmental Site Assessment
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60001068&doc_id=6022763
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 5/7/2009
Comments: Approval of Phase I ESA w/ NA determination.

12	2 of 2	SSE	0.95 / 5,011.28	1,469.49 / 38	PROPOSED ELEMENTARY SCHOOL NO. 15 ROUSE ROAD/SHERMAN ROAD MENIFEE CA 92585	ENVIROSTOR

Estor/EPA ID:	60001068	**Assembly District:**	67
Site Code:	404827	**Senate District:**	23
Nat Priority List:	NO	**Permit Renewal Lead:**	
APN:	NONE SPECIFIED	**Public Partici Spclst:**	
Census Tract:	6065042728	**Project Manager:**	
Site Type:	SCHOOL	**County:**	RIVERSIDE
Address Description:	ROUSE ROAD/SHERMAN ROAD	**Latitude:**	33.7253
Office:	SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH	**Longitude:**	-117.1755
Special Program:		**Acres:**	12 ACRES
Funding:	SCHOOL DISTRICT	**Supervisor:**	SHAHIR HADDAD

Cleanup Status: NO ACTION REQUIRED AS OF 5/11/2009
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
School District: MENIFEE UNION SCHOOL DISTRICT
Past Use that Caused Contam: NONE
Potential Media Affected: UNDER INVESTIGATION
Potential Contamin of Concern:

UNDER INVESTIGATION

Site History:

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The Proposed School Site is vacant land that has never been developed, but historically was used for agricultural purposes, i.e., dry land grain (wheat, barley and safflower) farming.

Status:	NO ACTION REQUIRED
Program Type:	SCHOOL INVESTIGATION
CalEnviroScreen Score:	61-65%
Summary Link:	https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60001068

Completed Activities

Title:	Phase 1 Environmental Site Assessment
Title Link:	https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60001068&doc_id=6022763
Area Name:	
Area Link:	
Sub Area:	
Sub Area Link:	
Document Type:	Phase 1
Date Completed:	5/7/2009
Comments:	Approval of Phase I ESA w/ NA determination.

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Unplottable Summary

Total: 5 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID
MINES	NORTH COUNTY SAND & GRAVEL INC	***Mine ID:*** 0402253	CA		848330473
MINES	NORTH COUNTY SAND & GRAVEL INC	***Mine ID:*** 0405289	Menifee CA		848257882
MINES	NORTH COUNTY SAND & GRAVEL INC	***Mine ID:*** 0404839	CA		848258196
MINES	NORTH COUNTY SAND & GRAVEL INC	***Mine ID:*** 0405030	CA		848319271
MINES	NORTH COUNTY SAND & GRAVEL INC	***Mine ID:*** 0405235	CA		848294895

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Unplottable Report

Site: ***NORTH COUNTY SAND & GRAVEL INC***
CA

MINES

Mine ID:	0402253	***SIC:***	144200
Entity Name:	TWIN CREEKS SPREADING GROUND	***Secondary SIC 1:***	000000
Status Code:	4	***Secondary SIC 2:***	000000
Mine Status:	Permanently Abandoned	***Secondary SIC 3:***	000000
Status Date:	20000907	***Secondary SIC 4:***	000000
Operation Class:	2 - Non-coal mining	***Secondary SIC 5:***	000000
Company Type:	Other	***Mines Prim SIC CD:***	144200
Assess Ctrl No:	040225305511	***Primary SIC:***	Construction Sand and Gravel
Current Mine Name:	TWIN CREEKS SPREADING GROUND	***Primary SIC CD 1:***	1442
Current Mine Type:	Surface	***Primary SIC CD SFX:***	00
Current Mine Status:	Abandoned	***Secondary SIC CD:***	
Current Status Dt:	09/07/2000	***Secondary SIC:***	
Current Controller ID:	M07059	***Secondary SIC CD 1:***	
Curr Controller Name:	Mike J LaPaglia	***Sec SIC CD Sfx:***	
Curr Cont Begin Dt:	08/01/1994	***Primary Canvass CD:***	5
Curr Operator ID:	L08940	***Primary Canvass:***	SandAndGravel
Curr Operator Name:	North County Sand & Gravel Inc	***Sec Canvass CD:***	
Coal Metal Ind:	M	***Secondary Canvass:***	
Mines State:	CA	***Lat Deg:***	00
No of Shops:	0	***Lat Min:***	00
No of Plants:	0	***Lat Sec:***	00
No of Pits:	000	***Long Deg:***	000
Current 103I:		***Long Min:***	00
Current 103I Dt:		***Long Sec:***	00
Portable Operation:	Yes	***Longitude:***	
Portable FIPS St CD:	06	***Latitude:***	
Days Per Week:	5	***County Code:***	071
Hours Per Shift:	8	***State Code:***	06
Prod Shifts Per Day:	1	***District:***	M7
Maint Shifts Per Day:		***BOM State CD:***	04
No Employees:	0	***FIPS Cnty CD:***	071
Part48 Training:	Yes	***FIPS Cnty Nm:***	San Bernardino
Avg Mine Height:		***Cong Dist CD:***	40
Mine Gas Ctgry CD:		***Contact Title:***	Paglia Pres
Methane Liberation:		***Street:***	40485 D Murrieta Hot Springs Rd #115
No Producing Pits:		***Po Box:***	
No Non-Prod Pits:		***City:***	MURRIETA
No Tailing Ponds:		***State Abbr:***	CA
Pillar Recovery Used:	No	***FIPS State CD:***	06
Highwall Miner Used:	No	***State:***	California
Multiple Pits:	No	***Zip CD:***	92563
Miners Rep Ind:	No	***Country:***	USA
Safety Committee Ind:	No	***Province:***	
Miles from Office:	8	***Postal CD:***	
Directions to Mine:		***Primary SIC CD:***	Construction Sand and Gravel
Office CD:	M7831	***State Abbrev:***	CA

Office Name: San Bernardino CA Field Office
Status Description: The mine has been permanently shut down.
Source File Desc: Master Index File;MINES Data Set

Violation Details

Event No:	0653627	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	TWIN CREEKS SPREADING GROUND	***Bill Print Dt:***	06/05/2000
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid

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Likelihood:	NoLikelihood	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	10/03/2000
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	03/31/2000
Inspection Begin Dt:	03/24/2000	***Cal Yr:***	2000
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	03/24/2000	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	04/06/2000
Violation No:	7976776	***Fiscal Yr:***	2000
Enforcement Area:		***Termination Time:***	1325
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	03/24/2000	***Vacate Time:***	
Violation Issue Dt:	03/24/2000	***Part Section:***	56.1000
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1020	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/15/2000	***Docket No:***	
Violation Occur Dt:	03/24/2000	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Site: ***NORTH COUNTY SAND & GRAVEL INC***
Menifee CA

MINES

Mine ID:	0405289	***SIC:***	144200
Entity Name:	POWERSCREEN 2100	***Secondary SIC 1:***	000000
Status Code:	1	***Secondary SIC 2:***	000000
Mine Status:	Full-Time Permanent	***Secondary SIC 3:***	000000
Status Date:	20200211	***Secondary SIC 4:***	000000
Operation Class:	2 - Non-coal mining	***Secondary SIC 5:***	000000
Company Type:	Corporation	***Mines Prim SIC CD:***	144200
Assess Ctrl No:	000542336	***Primary SIC:***	Construction Sand and Gravel
Current Mine Name:	PowerScreen 2100	***Primary SIC CD 1:***	1442
Current Mine Type:	Surface	***Primary SIC CD SFX:***	00
Current Mine Status:	Active	***Secondary SIC CD:***	
Current Status Dt:	02/11/2020	***Secondary SIC:***	
Current Controller ID:	M07059	***Secondary SIC CD 1:***	
Curr Controller Name:	Mike J LaPaglia	***Sec SIC CD Sfx:***	
Curr Cont Begin Dt:	07/01/1996	***Primary Canvass CD:***	5
Curr Operator ID:	L08940	***Primary Canvass:***	SandAndGravel
Curr Operator Name:	North County Sand & Gravel Inc	***Sec Canvass CD:***	
Coal Metal Ind:	M	***Secondary Canvass:***	
Mines State:	CA	***Lat Deg:***	00
No of Shops:	0	***Lat Min:***	00
No of Plants:	0	***Lat Sec:***	00
No of Pits:	000	***Long Deg:***	000
Current 103I:	Never Had 103I Status	***Long Min:***	00
Current 103I Dt:		***Long Sec:***	00
Portable Operation:	Yes	***Longitude:***	
Portable FIPS St CD:	06	***Latitude:***	
Days Per Week:	5	***County Code:***	071
Hours Per Shift:	8	***State Code:***	06
Prod Shifts Per Day:	1	***District:***	M7
Maint Shifts Per Day:	0	***BOM State CD:***	04
No Employees:	3	***FIPS Cnty CD:***	071
Part48 Training:	Yes	***FIPS Cnty Nm:***	San Bernardino
Avg Mine Height:		***Cong Dist CD:***	
Mine Gas Ctgry CD:		***Contact Title:***	Operations Manager
Methane Liberation:		***Street:***	26227 Sherman rd
No Producing Pits:		***Po Box:***	
No Non-Prod Pits:		***City:***	Menifee
No Tailing Ponds:	0	***State Abbr:***	CA
Pillar Recovery Used:	No	***FIPS State CD:***	06
Highwall Miner Used:	No	***State:***	California

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Multiple Pits:	No	***Zip CD:***	92585
Miners Rep Ind:	No	***Country:***	USA
Safety Committee Ind:	No	***Province:***	
Miles from Office:	25	***Postal CD:***	
Directions to Mine:	From F.O. Take 215 S to Murrieta, exit onto Clinton Keith Road, Turn R (west) then make a right on McElwain Rd, then make a left on Linnel Rd.	***Primary SIC CD:***	Construction Sand and Gravel
Office CD:	M7831	***State Abbrev:***	CA
Office Name:	San Bernardino CA Field Office		
Status Description:	The mine is actively being worked.		
Source File Desc:	Master Index File;MINES Data Set		

Violation Details

Event No:	6669468	***Amount Paid:***	116
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	07/13/2017
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	06/07/2017
Controller ID:	M07059	***Last Action Dt:***	08/15/2017
Inj Illness:	LostDays	***Orig Term Due Tm:***	1200
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	06/07/2017
Inspection Begin Dt:	06/07/2017	***Cal Yr:***	2017
Negligence:	LowNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	06/08/2017	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	06/08/2017
Violation No:	8995252	***Fiscal Yr:***	2017
Enforcement Area:		***Termination Time:***	1015
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	06/07/2017	***Part Section:***	56.9300(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0930	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/27/2017	***Docket No:***	
Violation Occur Dt:	06/07/2017	***Section of Act 2:***	
Proposed Penalty:	116	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	116	***Contested Dt:***	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	6669452	***Amount Paid:***	116
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	05/18/2017
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	04/04/2017
Controller ID:	M07059	***Last Action Dt:***	06/13/2017
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	1330
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/04/2017
Inspection Begin Dt:	04/04/2017	***Cal Yr:***	2017
Negligence:	ModNegligence	***Latest Term Due Tm:***	1330
Inspection End Dt:	04/06/2017	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/04/2017
Violation No:	8995201	***Fiscal Yr:***	2017
Enforcement Area:		***Termination Time:***	1300
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	

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Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/04/2017	***Part Section:***	50.30(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1238	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/02/2017	***Docket No:***	
Violation Occur Dt:	04/04/2017	***Section of Act 2:***	
Proposed Penalty:	116	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	116	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	6669452	***Amount Paid:***	116
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	05/18/2017
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	04/05/2017
Controller ID:	M07059	***Last Action Dt:***	06/13/2017
Inj Illness:	LostDays	***Orig Term Due Tm:***	1200
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/05/2017
Inspection Begin Dt:	04/04/2017	***Cal Yr:***	2017
Negligence:	ModNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	04/06/2017	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/06/2017
Violation No:	8995207	***Fiscal Yr:***	2017
Enforcement Area:		***Termination Time:***	1010
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/05/2017	***Part Section:***	56.11002
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1025	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/02/2017	***Docket No:***	
Violation Occur Dt:	04/05/2017	***Section of Act 2:***	
Proposed Penalty:	116	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	116	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	0653258	***Amount Paid:***	66
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	06/28/2001
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	01/09/2002
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/18/2001
Inspection Begin Dt:	04/17/2001	***Cal Yr:***	2001
Negligence:	ModNegligence	***Latest Term Due Tm:***	0700
Inspection End Dt:	04/30/2001	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	05/07/2001
Violation No:	7991927	***Fiscal Yr:***	2001
Enforcement Area:		***Termination Time:***	1235
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	

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Right to Conf Dt:	04/17/2001	***Vacate Time:***	
Violation Issue Dt:	04/17/2001	***Part Section:***	56.20008(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0845	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/08/2001	***Docket No:***	
Violation Occur Dt:	04/17/2001	***Section of Act 2:***	
Proposed Penalty:	66	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	66	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	6821036	***Amount Paid:***	1031
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	03/15/2018
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	01/30/2018
Controller ID:	M07059	***Last Action Dt:***	01/10/2019
Inj Illness:	Fatal	***Orig Term Due Tm:***	1200
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	01/30/2018
Inspection Begin Dt:	01/30/2018	***Cal Yr:***	2018
Negligence:	LowNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	01/31/2018	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	01/31/2018
Violation No:	9375086	***Fiscal Yr:***	2018
Enforcement Area:		***Termination Time:***	1204
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	01/30/2018	***Part Section:***	56.14107(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0908	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/20/2019	***Docket No:***	
Violation Occur Dt:	01/30/2018	***Section of Act 2:***	
Proposed Penalty:	2295	***Docket Stat Cd:***	
Violator Violation Cnt:	13	***Contested Ind:***	No
Amount Due:	1031	***Contested Dt:***	
Violator Insp Day Cnt:	5		

Violation Details

Event No:	6821036	***Amount Paid:***	208
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	03/15/2018
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	01/30/2018
Controller ID:	M07059	***Last Action Dt:***	04/12/2018
Inj Illness:	Permanent	***Orig Term Due Tm:***	1000
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	01/30/2018
Inspection Begin Dt:	01/30/2018	***Cal Yr:***	2018
Negligence:	ModNegligence	***Latest Term Due Tm:***	1000
Inspection End Dt:	01/31/2018	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	01/30/2018
Violation No:	9375085	***Fiscal Yr:***	2018
Enforcement Area:		***Termination Time:***	0858
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	

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Violation Issue Dt:	01/30/2018	***Part Section:***	56.14112(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0852	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	04/18/2018	***Docket No:***	
Violation Occur Dt:	01/30/2018	***Section of Act 2:***	
Proposed Penalty:	208	***Docket Stat Cd:***	
Violator Violation Cnt:	13	***Contested Ind:***	No
Amount Due:	208	***Contested Dt:***	
Violator Insp Day Cnt:	5		

Violation Details

Event No:	6669452	***Amount Paid:***	116
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	05/18/2017
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	04/05/2017
Controller ID:	M07059	***Last Action Dt:***	06/13/2017
Inj Illness:	Permanent	***Orig Term Due Tm:***	1200
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/05/2017
Inspection Begin Dt:	04/04/2017	***Cal Yr:***	2017
Negligence:	ModNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	04/06/2017	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/06/2017
Violation No:	8995205	***Fiscal Yr:***	2017
Enforcement Area:		***Termination Time:***	1005
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/05/2017	***Part Section:***	47.41(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0920	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/02/2017	***Docket No:***	
Violation Occur Dt:	04/05/2017	***Section of Act 2:***	
Proposed Penalty:	116	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	116	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	6871606	***Amount Paid:***	123
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	03/19/2020
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	02/11/2020
Controller ID:	M07059	***Last Action Dt:***	04/02/2020
Inj Illness:	Permanent	***Orig Term Due Tm:***	1440
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	02/11/2020
Inspection Begin Dt:	02/10/2020	***Cal Yr:***	2020
Negligence:	ModNegligence	***Latest Term Due Tm:***	1440
Inspection End Dt:	02/12/2020	***Cal Qtr:***	1
Written Notice:	No	***Termination Dt:***	02/11/2020
Violation No:	9432699	***Fiscal Yr:***	2020
Enforcement Area:		***Termination Time:***	1224
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	02/11/2020	***Part Section:***	56.14112(b)

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Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1140	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	04/22/2020	***Docket No:***	
Violation Occur Dt:	02/11/2020	***Section of Act 2:***	
Proposed Penalty:	123	***Docket Stat Cd:***	
Violator Violation Cnt:	6	***Contested Ind:***	No
Amount Due:	123	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	6669452	***Amount Paid:***	116
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	05/18/2017
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	04/05/2017
Controller ID:	M07059	***Last Action Dt:***	06/13/2017
Inj Illness:	Permanent	***Orig Term Due Tm:***	1200
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/05/2017
Inspection Begin Dt:	04/04/2017	***Cal Yr:***	2017
Negligence:	ModNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	04/06/2017	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/06/2017
Violation No:	8995206	***Fiscal Yr:***	2017
Enforcement Area:		***Termination Time:***	1007
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/05/2017	***Part Section:***	47.41(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1010	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/02/2017	***Docket No:***	
Violation Occur Dt:	04/05/2017	***Section of Act 2:***	
Proposed Penalty:	116	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	116	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	6871606	***Amount Paid:***	123
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	03/19/2020
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	02/11/2020
Controller ID:	M07059	***Last Action Dt:***	04/02/2020
Inj Illness:	LostDays	***Orig Term Due Tm:***	1345
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	02/11/2020
Inspection Begin Dt:	02/10/2020	***Cal Yr:***	2020
Negligence:	ModNegligence	***Latest Term Due Tm:***	1345
Inspection End Dt:	02/12/2020	***Cal Qtr:***	1
Written Notice:	No	***Termination Dt:***	02/11/2020
Violation No:	9432700	***Fiscal Yr:***	2020
Enforcement Area:		***Termination Time:***	1202
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	02/11/2020	***Part Section:***	56.4200(b)(2)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed

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Violation Issue Time:	1145	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	04/22/2020	***Docket No:***	
Violation Occur Dt:	02/11/2020	***Section of Act 2:***	
Proposed Penalty:	123	***Docket Stat Cd:***	
Violator Violation Cnt:	6	***Contested Ind:***	No
Amount Due:	123	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	6871606	***Amount Paid:***	123
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	03/19/2020
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	02/11/2020
Controller ID:	M07059	***Last Action Dt:***	04/02/2020
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	1531
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	02/11/2020
Inspection Begin Dt:	02/10/2020	***Cal Yr:***	2020
Negligence:	HighNegligence	***Latest Term Due Tm:***	1531
Inspection End Dt:	02/12/2020	***Cal Qtr:***	1
Written Notice:	No	***Termination Dt:***	02/11/2020
Violation No:	9432698	***Fiscal Yr:***	2020
Enforcement Area:		***Termination Time:***	1452
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	02/11/2020	***Part Section:***	56.1000
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1031	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	04/22/2020	***Docket No:***	
Violation Occur Dt:	02/11/2020	***Section of Act 2:***	
Proposed Penalty:	123	***Docket Stat Cd:***	
Violator Violation Cnt:	6	***Contested Ind:***	No
Amount Due:	123	***Contested Dt:***	
Violator Insp Day Cnt:	1		

Violation Details

Event No:	6821036	***Amount Paid:***	1031
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	03/15/2018
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	01/30/2018
Controller ID:	M07059	***Last Action Dt:***	01/10/2019
Inj Illness:	Fatal	***Orig Term Due Tm:***	1030
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	01/30/2018
Inspection Begin Dt:	01/30/2018	***Cal Yr:***	2018
Negligence:	LowNegligence	***Latest Term Due Tm:***	1030
Inspection End Dt:	01/31/2018	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	02/13/2018
Violation No:	9375087	***Fiscal Yr:***	2018
Enforcement Area:		***Termination Time:***	0751
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	01/30/2018	***Part Section:***	56.3130
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0945	***Section of Act 1:***	104(a)

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Final Ord Issue Dt: 01/20/2019
Violation Occur Dt: 01/30/2018
Proposed Penalty: 2295
Violator Violation Cnt: 13
Amount Due: 1031
Violator Insp Day Cnt: 5
Docket No:
Section of Act 2:
Docket Stat Cd:
Contested Ind: No
Contested Dt:

Violation Details

Event No: 6669468
Initial Viol No:
Mine Name: PowerScreen 2100
Replaced by Ord No:
Mine Type: Surface
Likelihood: Highly
Controller ID: M07059
Inj Illness: Fatal
Controller Name: Mike J LaPaglia
No Affected: 1
Inspection Begin Dt: 06/07/2017
Negligence: ModNegligence
Inspection End Dt: 06/08/2017
Written Notice:
Violation No: 8995249
Enforcement Area:
Violator ID: L08940
Special Assess: No
Violator Name: North County Sand & Gravel Inc
Primary or Mill: Primary
Violator Type CD: Operator
Right to Conf Dt:
Violation Issue Dt: 06/07/2017
Asmt Generated Ind: No
Violation Issue Time: 0835
Final Ord Issue Dt: 08/27/2017
Violation Occur Dt: 06/07/2017
Proposed Penalty: 695
Violator Violation Cnt: 0
Amount Due: 695
Violator Insp Day Cnt: 3
Amount Paid: 695
Contractor ID:
Bill Print Dt: 07/13/2017
Cit Ord Safe: Citation
Last Action Cd: Paid
Orig Term Due Dt:
Last Action Dt: 08/15/2017
Orig Term Due Tm:
Coal Metal Ind: M
Latest Term Due Dt:
Cal Yr: 2017
Latest Term Due Tm:
Cal Qtr: 2
Termination Dt: 06/13/2017
Fiscal Yr: 2017
Termination Time: 0843
Fiscal Qtr: 3
Termination Type: Terminated
Sig Sub: Yes
Vacate Dt:
Section of Act:
Vacate Time:
Part Section: 56.16002(c)
Assess Case Stat Cd: Closed
Section of Act 1: 104(a)
Docket No:
Section of Act 2:
Docket Stat Cd:
Contested Ind: No
Contested Dt:

Violation Details

Event No: 0653258
Initial Viol No:
Mine Name: PowerScreen 2100
Replaced by Ord No:
Mine Type: Surface
Likelihood: Unlikely
Controller ID: M07059
Inj Illness: Permanent
Controller Name: Mike J LaPaglia
No Affected: 1
Inspection Begin Dt: 04/17/2001
Negligence: ModNegligence
Inspection End Dt: 04/30/2001
Written Notice:
Violation No: 7991932
Enforcement Area:
Violator ID: L08940
Special Assess: No
Violator Name: North County Sand & Gravel Inc
Primary or Mill: Primary
Violator Type CD: Operator
Right to Conf Dt: 04/17/2001
Violation Issue Dt: 04/17/2001
Asmt Generated Ind: No
Violation Issue Time: 0905
Final Ord Issue Dt: 08/08/2001
Amount Paid: 55
Contractor ID:
Bill Print Dt: 06/28/2001
Cit Ord Safe: Citation
Last Action Cd: Paid
Orig Term Due Dt:
Last Action Dt: 01/09/2002
Orig Term Due Tm:
Coal Metal Ind: M
Latest Term Due Dt: 04/17/2001
Cal Yr: 2001
Latest Term Due Tm: 1400
Cal Qtr: 2
Termination Dt: 04/17/2001
Fiscal Yr: 2001
Termination Time: 0906
Fiscal Qtr: 3
Termination Type: Terminated
Sig Sub: No
Vacate Dt:
Section of Act:
Vacate Time:
Part Section: 56.14112(b)
Assess Case Stat Cd: Closed
Section of Act 1: 104(a)
Docket No:

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Violation Occur Dt:	04/17/2001	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	6821036	***Amount Paid:***	138
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	03/15/2018
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	01/30/2018
Controller ID:	M07059	***Last Action Dt:***	04/12/2018
Inj Illness:	LostDays	***Orig Term Due Tm:***	1000
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	01/30/2018
Inspection Begin Dt:	01/30/2018	***Cal Yr:***	2018
Negligence:	ModNegligence	***Latest Term Due Tm:***	1000
Inspection End Dt:	01/31/2018	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	01/31/2018
Violation No:	9375084	***Fiscal Yr:***	2018
Enforcement Area:		***Termination Time:***	1202
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	01/30/2018	***Part Section:***	56.9300(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0832	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	04/18/2018	***Docket No:***	
Violation Occur Dt:	01/30/2018	***Section of Act 2:***	
Proposed Penalty:	138	***Docket Stat Cd:***	
Violator Violation Cnt:	13	***Contested Ind:***	No
Amount Due:	138	***Contested Dt:***	
Violator Insp Day Cnt:	5		

Violation Details

Event No:	6669468	***Amount Paid:***	126
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	07/13/2017
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	06/07/2017
Controller ID:	M07059	***Last Action Dt:***	08/15/2017
Inj Illness:	Permanent	***Orig Term Due Tm:***	1020
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	06/07/2017
Inspection Begin Dt:	06/07/2017	***Cal Yr:***	2017
Negligence:	ModNegligence	***Latest Term Due Tm:***	1020
Inspection End Dt:	06/08/2017	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	06/07/2017
Violation No:	8995254	***Fiscal Yr:***	2017
Enforcement Area:		***Termination Time:***	1030
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	06/07/2017	***Part Section:***	56.18002(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1010	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/27/2017	***Docket No:***	
Violation Occur Dt:	06/07/2017	***Section of Act 2:***	

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Proposed Penalty:	126	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	126	***Contested Dt:***	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	6821143	***Amount Paid:***	138
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	12/13/2018
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	12/12/2018
Controller ID:	M07059	***Last Action Dt:***	01/10/2019
Inj Illness:	LostDays	***Orig Term Due Tm:***	0800
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	12/12/2018
Inspection Begin Dt:	10/22/2018	***Cal Yr:***	2018
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	10/26/2018	***Cal Qtr:***	4
Written Notice:	No	***Termination Dt:***	11/07/2018
Violation No:	9432431	***Fiscal Yr:***	2019
Enforcement Area:		***Termination Time:***	1130
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/24/2018	***Part Section:***	56.18010
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1520	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/16/2019	***Docket No:***	
Violation Occur Dt:	10/24/2018	***Section of Act 2:***	
Proposed Penalty:	138	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	138	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	6727950	***Amount Paid:***	123
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	06/18/2020
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	05/04/2020
Controller ID:	M07059	***Last Action Dt:***	07/13/2020
Inj Illness:	LostDays	***Orig Term Due Tm:***	1500
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	05/04/2020
Inspection Begin Dt:	05/04/2020	***Cal Yr:***	2020
Negligence:	LowNegligence	***Latest Term Due Tm:***	1500
Inspection End Dt:	05/05/2020	***Cal Qtr:***	2
Written Notice:	No	***Termination Dt:***	05/04/2020
Violation No:	6487559	***Fiscal Yr:***	2020
Enforcement Area:		***Termination Time:***	1230
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	05/04/2020	***Part Section:***	56.4201(a)(2)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1224	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/26/2020	***Docket No:***	
Violation Occur Dt:	05/04/2020	***Section of Act 2:***	
Proposed Penalty:	123	***Docket Stat Cd:***	

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Violator Violation Cnt:	4	***Contested Ind:***	No
Amount Due:	123	***Contested Dt:***	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	6821143	***Amount Paid:***	138
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	12/13/2018
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	10/25/2018
Controller ID:	M07059	***Last Action Dt:***	01/10/2019
Inj Illness:	LostDays	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	10/25/2018
Inspection Begin Dt:	10/22/2018	***Cal Yr:***	2018
Negligence:	ModNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	10/26/2018	***Cal Qtr:***	4
Written Notice:	No	***Termination Dt:***	11/07/2018
Violation No:	9432428	***Fiscal Yr:***	2019
Enforcement Area:		***Termination Time:***	1030
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/24/2018	***Part Section:***	56.4101
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1255	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/16/2019	***Docket No:***	
Violation Occur Dt:	10/24/2018	***Section of Act 2:***	
Proposed Penalty:	138	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	138	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	6669452	***Amount Paid:***	116
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	05/18/2017
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	04/05/2017
Controller ID:	M07059	***Last Action Dt:***	06/13/2017
Inj Illness:	LostDays	***Orig Term Due Tm:***	1200
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/05/2017
Inspection Begin Dt:	04/04/2017	***Cal Yr:***	2017
Negligence:	ModNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	04/06/2017	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/06/2017
Violation No:	8995203	***Fiscal Yr:***	2017
Enforcement Area:		***Termination Time:***	0957
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/05/2017	***Part Section:***	56.9301
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0820	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/02/2017	***Docket No:***	
Violation Occur Dt:	04/05/2017	***Section of Act 2:***	
Proposed Penalty:	116	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No

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Amount Due:	116	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	6595420	***Amount Paid:***	100
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	02/13/2014
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	01/09/2014
Controller ID:	M07059	***Last Action Dt:***	03/10/2014
Inj Illness:	LostDays	***Orig Term Due Tm:***	1500
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	01/16/2014
Inspection Begin Dt:	01/09/2014	***Cal Yr:***	2014
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	01/14/2014	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	02/03/2014
Violation No:	8781016	***Fiscal Yr:***	2014
Enforcement Area:		***Termination Time:***	1129
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	Yes	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	01/09/2014	***Part Section:***	56.14101(a)(3)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1152	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	03/26/2014	***Docket No:***	
Violation Occur Dt:	01/09/2014	***Section of Act 2:***	
Proposed Penalty:	100	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	100	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	6727557	***Amount Paid:***	123
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	11/19/2020
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	10/06/2020
Controller ID:	M07059	***Last Action Dt:***	12/29/2020
Inj Illness:	Permanent	***Orig Term Due Tm:***	1130
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	10/06/2020
Inspection Begin Dt:	10/06/2020	***Cal Yr:***	2020
Negligence:	ModNegligence	***Latest Term Due Tm:***	1130
Inspection End Dt:	10/06/2020	***Cal Qtr:***	4
Written Notice:	No	***Termination Dt:***	10/06/2020
Violation No:	9432597	***Fiscal Yr:***	2021
Enforcement Area:		***Termination Time:***	1035
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/06/2020	***Part Section:***	56.4200(b)(2)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1030	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/19/2021	***Docket No:***	
Violation Occur Dt:	10/06/2020	***Section of Act 2:***	
Proposed Penalty:	123	***Docket Stat Cd:***	
Violator Violation Cnt:	7	***Contested Ind:***	No
Amount Due:	123	***Contested Dt:***	

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Violator Insp Day Cnt: 4

Violation Details

Event No:	6727950	***Amount Paid:***	123
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	06/18/2020
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	05/06/2020
Controller ID:	M07059	***Last Action Dt:***	07/13/2020
Inj Illness:	Fatal	***Orig Term Due Tm:***	1500
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	05/06/2020
Inspection Begin Dt:	05/04/2020	***Cal Yr:***	2020
Negligence:	LowNegligence	***Latest Term Due Tm:***	1500
Inspection End Dt:	05/05/2020	***Cal Qtr:***	2
Written Notice:	No	***Termination Dt:***	05/05/2020
Violation No:	6487557	***Fiscal Yr:***	2020
Enforcement Area:		***Termination Time:***	0945
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	05/04/2020	***Part Section:***	56.14132(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1125	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/26/2020	***Docket No:***	
Violation Occur Dt:	05/04/2020	***Section of Act 2:***	
Proposed Penalty:	123	***Docket Stat Cd:***	
Violator Violation Cnt:	4	***Contested Ind:***	No
Amount Due:	123	***Contested Dt:***	
Violator Insp Day Cnt:	2		

Violation Details

Event No:	6727950	***Amount Paid:***	123
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	06/18/2020
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	05/05/2020
Controller ID:	M07059	***Last Action Dt:***	07/13/2020
Inj Illness:	LostDays	***Orig Term Due Tm:***	1500
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	05/05/2020
Inspection Begin Dt:	05/04/2020	***Cal Yr:***	2020
Negligence:	LowNegligence	***Latest Term Due Tm:***	1500
Inspection End Dt:	05/05/2020	***Cal Qtr:***	2
Written Notice:	No	***Termination Dt:***	05/05/2020
Violation No:	6487558	***Fiscal Yr:***	2020
Enforcement Area:		***Termination Time:***	0905
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	05/04/2020	***Part Section:***	56.4101
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1142	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/26/2020	***Docket No:***	
Violation Occur Dt:	05/04/2020	***Section of Act 2:***	
Proposed Penalty:	123	***Docket Stat Cd:***	
Violator Violation Cnt:	4	***Contested Ind:***	No
Amount Due:	123	***Contested Dt:***	
Violator Insp Day Cnt:	2		

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Violation Details

Event No:	0653265	***Amount Paid:***	
Initial Viol No:	7991934	***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	
Replaced by Ord No:		***Cit Ord Safe:***	Order
Mine Type:	Surface	***Last Action Cd:***	
Likelihood:		***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	
Inj Illness:		***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	
Inspection Begin Dt:	05/07/2001	***Cal Yr:***	2001
Negligence:		***Latest Term Due Tm:***	
Inspection End Dt:	05/09/2001	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	05/09/2001
Violation No:	7991949	***Fiscal Yr:***	2001
Enforcement Area:		***Termination Time:***	1305
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	05/07/2001	***Vacate Time:***	
Violation Issue Dt:	05/07/2001	***Part Section:***	56.14108
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	
Violation Issue Time:	1215	***Section of Act 1:***	104(b)
Final Ord Issue Dt:		***Docket No:***	
Violation Occur Dt:	05/07/2001	***Section of Act 2:***	
Proposed Penalty:		***Docket Stat Cd:***	
Violator Violation Cnt:		***Contested Ind:***	No
Amount Due:		***Contested Dt:***	
Violator Insp Day Cnt:			

Violation Details

Event No:	6669468	***Amount Paid:***	116
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	07/13/2017
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	06/08/2017
Controller ID:	M07059	***Last Action Dt:***	08/15/2017
Inj Illness:	LostDays	***Orig Term Due Tm:***	0600
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	06/08/2017
Inspection Begin Dt:	06/07/2017	***Cal Yr:***	2017
Negligence:	ModNegligence	***Latest Term Due Tm:***	0600
Inspection End Dt:	06/08/2017	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	06/08/2017
Violation No:	8995253	***Fiscal Yr:***	2017
Enforcement Area:		***Termination Time:***	1040
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	06/07/2017	***Part Section:***	56.20003(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0955	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/27/2017	***Docket No:***	
Violation Occur Dt:	06/07/2017	***Section of Act 2:***	
Proposed Penalty:	116	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	116	***Contested Dt:***	
Violator Insp Day Cnt:	3		

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Violation Details

Event No:	6669468	***Amount Paid:***	116
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	07/13/2017
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	06/07/2017
Controller ID:	M07059	***Last Action Dt:***	08/15/2017
Inj Illness:	LostDays	***Orig Term Due Tm:***	0910
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	06/07/2017
Inspection Begin Dt:	06/07/2017	***Cal Yr:***	2017
Negligence:	LowNegligence	***Latest Term Due Tm:***	0910
Inspection End Dt:	06/08/2017	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	06/07/2017
Violation No:	8995251	***Fiscal Yr:***	2017
Enforcement Area:		***Termination Time:***	0915
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	06/07/2017	***Part Section:***	56.14207
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0900	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/27/2017	***Docket No:***	
Violation Occur Dt:	06/07/2017	***Section of Act 2:***	
Proposed Penalty:	116	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	116	***Contested Dt:***	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	6669468	***Amount Paid:***	116
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	07/13/2017
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	06/08/2017
Controller ID:	M07059	***Last Action Dt:***	08/15/2017
Inj Illness:	LostDays	***Orig Term Due Tm:***	0800
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	06/08/2017
Inspection Begin Dt:	06/07/2017	***Cal Yr:***	2017
Negligence:	ModNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	06/08/2017	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	06/08/2017
Violation No:	8995250	***Fiscal Yr:***	2017
Enforcement Area:		***Termination Time:***	1000
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	06/07/2017	***Part Section:***	56.9301
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0850	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/27/2017	***Docket No:***	
Violation Occur Dt:	06/07/2017	***Section of Act 2:***	
Proposed Penalty:	116	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	116	***Contested Dt:***	
Violator Insp Day Cnt:	3		

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Violation Details

Event No:	6821036	***Amount Paid:***	208
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	03/15/2018
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	01/30/2018
Controller ID:	M07059	***Last Action Dt:***	04/12/2018
Inj Illness:	Permanent	***Orig Term Due Tm:***	1030
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	01/30/2018
Inspection Begin Dt:	01/30/2018	***Cal Yr:***	2018
Negligence:	ModNegligence	***Latest Term Due Tm:***	1030
Inspection End Dt:	01/31/2018	***Cal Qtr:***	1
Written Notice:		***Termination Dt:***	01/30/2018
Violation No:	9375088	***Fiscal Yr:***	2018
Enforcement Area:		***Termination Time:***	1024
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	01/30/2018	***Part Section:***	47.44(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1012	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	04/18/2018	***Docket No:***	
Violation Occur Dt:	01/30/2018	***Section of Act 2:***	
Proposed Penalty:	208	***Docket Stat Cd:***	
Violator Violation Cnt:	13	***Contested Ind:***	No
Amount Due:	208	***Contested Dt:***	
Violator Insp Day Cnt:	5		

Violation Details

Event No:	0653258	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	06/28/2001
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	01/09/2002
Inj Illness:	Permanent	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/17/2001
Inspection Begin Dt:	04/17/2001	***Cal Yr:***	2001
Negligence:	ModNegligence	***Latest Term Due Tm:***	1400
Inspection End Dt:	04/30/2001	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/17/2001
Violation No:	7991933	***Fiscal Yr:***	2001
Enforcement Area:		***Termination Time:***	0912
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/17/2001	***Vacate Time:***	
Violation Issue Dt:	04/17/2001	***Part Section:***	56.14112(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0910	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/08/2001	***Docket No:***	
Violation Occur Dt:	04/17/2001	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

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Event No:	0653258	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	07/26/2001
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	01/09/2002
Inj Illness:	Fatal	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	05/18/2001
Inspection Begin Dt:	04/17/2001	***Cal Yr:***	2001
Negligence:	ModNegligence	***Latest Term Due Tm:***	0700
Inspection End Dt:	04/30/2001	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	06/07/2001
Violation No:	7991936	***Fiscal Yr:***	2001
Enforcement Area:		***Termination Time:***	0910
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/30/2001	***Vacate Time:***	
Violation Issue Dt:	04/30/2001	***Part Section:***	56.18010
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1400	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	09/13/2001	***Docket No:***	
Violation Occur Dt:	04/30/2001	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	6669452	***Amount Paid:***	116
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	05/18/2017
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	04/05/2017
Controller ID:	M07059	***Last Action Dt:***	06/13/2017
Inj Illness:	Permanent	***Orig Term Due Tm:***	1200
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/05/2017
Inspection Begin Dt:	04/04/2017	***Cal Yr:***	2017
Negligence:	ModNegligence	***Latest Term Due Tm:***	1200
Inspection End Dt:	04/06/2017	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/06/2017
Violation No:	8995204	***Fiscal Yr:***	2017
Enforcement Area:		***Termination Time:***	1001
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	04/05/2017	***Part Section:***	56.14100(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0905	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	07/02/2017	***Docket No:***	
Violation Occur Dt:	04/05/2017	***Section of Act 2:***	
Proposed Penalty:	116	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	116	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

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Event No:	6669468	***Amount Paid:***	
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	
Replaced by Ord No:		***Cit Ord Safe:***	Order
Mine Type:	Surface	***Last Action Cd:***	
Likelihood:		***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	
Inj Illness:		***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	
Inspection Begin Dt:	06/07/2017	***Cal Yr:***	2017
Negligence:		***Latest Term Due Tm:***	
Inspection End Dt:	06/08/2017	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	06/07/2017
Violation No:	8995248	***Fiscal Yr:***	2017
Enforcement Area:		***Termination Time:***	0840
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	06/07/2017	***Part Section:***	
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	
Violation Issue Time:	0830	***Section of Act 1:***	107(a)
Final Ord Issue Dt:		***Docket No:***	
Violation Occur Dt:	06/07/2017	***Section of Act 2:***	
Proposed Penalty:		***Docket Stat Cd:***	
Violator Violation Cnt:		***Contested Ind:***	No
Amount Due:		***Contested Dt:***	
Violator Insp Day Cnt:			

Violation Details

Event No:	0653258	***Amount Paid:***	
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	
Replaced by Ord No:	7991949	***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	04/19/2001
Inspection Begin Dt:	04/17/2001	***Cal Yr:***	2001
Negligence:	ModNegligence	***Latest Term Due Tm:***	0700
Inspection End Dt:	04/30/2001	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	
Violation No:	7991934	***Fiscal Yr:***	2001
Enforcement Area:		***Termination Time:***	
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	ReplacedByOrder
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/17/2001	***Vacate Time:***	
Violation Issue Dt:	04/17/2001	***Part Section:***	56.14108
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	
Violation Issue Time:	0915	***Section of Act 1:***	104(a)
Final Ord Issue Dt:		***Docket No:***	
Violation Occur Dt:	04/17/2001	***Section of Act 2:***	
Proposed Penalty:		***Docket Stat Cd:***	
Violator Violation Cnt:		***Contested Ind:***	No
Amount Due:		***Contested Dt:***	
Violator Insp Day Cnt:			

Violation Details

Event No:	0653258	***Amount Paid:***	55

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Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	06/28/2001
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	01/09/2002
Inj Illness:	Fatal	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/18/2001
Inspection Begin Dt:	04/17/2001	***Cal Yr:***	2001
Negligence:	ModNegligence	***Latest Term Due Tm:***	0700
Inspection End Dt:	04/30/2001	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/18/2001
Violation No:	7991926	***Fiscal Yr:***	2001
Enforcement Area:		***Termination Time:***	0700
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/17/2001	***Vacate Time:***	
Violation Issue Dt:	04/17/2001	***Part Section:***	56.18013
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0830	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/08/2001	***Docket No:***	
Violation Occur Dt:	04/17/2001	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	0653258	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	06/28/2001
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	01/09/2002
Inj Illness:	Fatal	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/18/2001
Inspection Begin Dt:	04/17/2001	***Cal Yr:***	2001
Negligence:	ModNegligence	***Latest Term Due Tm:***	0700
Inspection End Dt:	04/30/2001	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	05/09/2001
Violation No:	7991928	***Fiscal Yr:***	2001
Enforcement Area:		***Termination Time:***	1130
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/17/2001	***Vacate Time:***	
Violation Issue Dt:	04/17/2001	***Part Section:***	56.20002(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0850	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/08/2001	***Docket No:***	
Violation Occur Dt:	04/17/2001	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	6821143	***Amount Paid:***	138
Initial Viol No:		***Contractor ID:***	

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Mine Name:	PowerScreen 2100	***Bill Print Dt:***	12/13/2018
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	10/24/2018
Controller ID:	M07059	***Last Action Dt:***	01/10/2019
Inj Illness:	LostDays	***Orig Term Due Tm:***	1330
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	10/24/2018
Inspection Begin Dt:	10/22/2018	***Cal Yr:***	2018
Negligence:	ModNegligence	***Latest Term Due Tm:***	1330
Inspection End Dt:	10/26/2018	***Cal Qtr:***	4
Written Notice:	No	***Termination Dt:***	10/24/2018
Violation No:	9432429	***Fiscal Yr:***	2019
Enforcement Area:		***Termination Time:***	1245
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/24/2018	***Part Section:***	56.4200(b)(2)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1215	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/16/2019	***Docket No:***	
Violation Occur Dt:	10/24/2018	***Section of Act 2:***	
Proposed Penalty:	138	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	138	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	6727557	***Amount Paid:***	123
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	11/19/2020
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	10/06/2020
Controller ID:	M07059	***Last Action Dt:***	12/29/2020
Inj Illness:	Permanent	***Orig Term Due Tm:***	1030
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	10/06/2020
Inspection Begin Dt:	10/06/2020	***Cal Yr:***	2020
Negligence:	HighNegligence	***Latest Term Due Tm:***	1030
Inspection End Dt:	10/06/2020	***Cal Qtr:***	4
Written Notice:	No	***Termination Dt:***	10/06/2020
Violation No:	9432595	***Fiscal Yr:***	2021
Enforcement Area:		***Termination Time:***	1100
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/06/2020	***Part Section:***	56.14112(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0930	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/19/2021	***Docket No:***	
Violation Occur Dt:	10/06/2020	***Section of Act 2:***	
Proposed Penalty:	123	***Docket Stat Cd:***	
Violator Violation Cnt:	7	***Contested Ind:***	No
Amount Due:	123	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	0653258	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	06/28/2001

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Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	01/09/2002
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/18/2001
Inspection Begin Dt:	04/17/2001	***Cal Yr:***	2001
Negligence:	ModNegligence	***Latest Term Due Tm:***	0700
Inspection End Dt:	04/30/2001	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/18/2001
Violation No:	7991929	***Fiscal Yr:***	2001
Enforcement Area:		***Termination Time:***	0705
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/17/2001	***Vacate Time:***	
Violation Issue Dt:	04/17/2001	***Part Section:***	56.4230(a)(1)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0955	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/08/2001	***Docket No:***	
Violation Occur Dt:	04/17/2001	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	6871606	***Amount Paid:***	123
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	03/19/2020
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	02/11/2020
Controller ID:	M07059	***Last Action Dt:***	04/02/2020
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	1530
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	02/11/2020
Inspection Begin Dt:	02/10/2020	***Cal Yr:***	2020
Negligence:	HighNegligence	***Latest Term Due Tm:***	1530
Inspection End Dt:	02/12/2020	***Cal Qtr:***	1
Written Notice:	No	***Termination Dt:***	02/11/2020
Violation No:	9432697	***Fiscal Yr:***	2020
Enforcement Area:		***Termination Time:***	1450
Violator ID:	L08940	***Fiscal Qtr:***	2
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	02/11/2020	***Part Section:***	56.1000
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1030	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	04/22/2020	***Docket No:***	
Violation Occur Dt:	09/30/2019	***Section of Act 2:***	
Proposed Penalty:	123	***Docket Stat Cd:***	
Violator Violation Cnt:	6	***Contested Ind:***	No
Amount Due:	123	***Contested Dt:***	
Violator Insp Day Cnt:	3		

Violation Details

Event No:	6727557	***Amount Paid:***	523
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	11/19/2020
Replaced by Ord No:		***Cit Ord Safe:***	Citation

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Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	10/06/2020
Controller ID:	M07059	***Last Action Dt:***	12/29/2020
Inj Illness:	Permanent	***Orig Term Due Tm:***	1015
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	10/06/2020
Inspection Begin Dt:	10/06/2020	***Cal Yr:***	2020
Negligence:	HighNegligence	***Latest Term Due Tm:***	1015
Inspection End Dt:	10/06/2020	***Cal Qtr:***	4
Written Notice:	No	***Termination Dt:***	10/06/2020
Violation No:	9432596	***Fiscal Yr:***	2021
Enforcement Area:		***Termination Time:***	1010
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/06/2020	***Part Section:***	56.14112(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0945	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/19/2021	***Docket No:***	
Violation Occur Dt:	10/06/2020	***Section of Act 2:***	
Proposed Penalty:	523	***Docket Stat Cd:***	
Violator Violation Cnt:	7	***Contested Ind:***	No
Amount Due:	523	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	6727596	***Amount Paid:***	237
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	09/16/2021
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	07/21/2021
Controller ID:	M07059	***Last Action Dt:***	09/29/2021
Inj Illness:	Permanent	***Orig Term Due Tm:***	1010
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	07/21/2021
Inspection Begin Dt:	07/21/2021	***Cal Yr:***	2021
Negligence:	ModNegligence	***Latest Term Due Tm:***	1010
Inspection End Dt:	07/21/2021	***Cal Qtr:***	3
Written Notice:	No	***Termination Dt:***	07/21/2021
Violation No:	9506609	***Fiscal Yr:***	2021
Enforcement Area:		***Termination Time:***	0950
Violator ID:	L08940	***Fiscal Qtr:***	4
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	07/21/2021	***Part Section:***	56.14112(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0940	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	10/31/2021	***Docket No:***	
Violation Occur Dt:	07/21/2021	***Section of Act 2:***	
Proposed Penalty:	237	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	237	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	6821143	***Amount Paid:***	462
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	12/13/2018
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid

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Likelihood:	Unlikely	***Orig Term Due Dt:***	10/29/2018
Controller ID:	M07059	***Last Action Dt:***	01/10/2019
Inj Illness:	LostDays	***Orig Term Due Tm:***	0900
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	10/29/2018
Inspection Begin Dt:	10/22/2018	***Cal Yr:***	2018
Negligence:	HighNegligence	***Latest Term Due Tm:***	0900
Inspection End Dt:	10/26/2018	***Cal Qtr:***	4
Written Notice:	No	***Termination Dt:***	11/07/2018
Violation No:	9432430	***Fiscal Yr:***	2019
Enforcement Area:		***Termination Time:***	1015
Violator ID:	L08940	***Fiscal Qtr:***	1
Special Assess:	Yes	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	10/24/2018	***Part Section:***	56.14100(b)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1400	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	01/16/2019	***Docket No:***	
Violation Occur Dt:	10/24/2018	***Section of Act 2:***	
Proposed Penalty:	462	***Docket Stat Cd:***	
Violator Violation Cnt:	10	***Contested Ind:***	No
Amount Due:	462	***Contested Dt:***	
Violator Insp Day Cnt:	4		

Violation Details

Event No:	0653258	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	06/28/2001
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	NoLikelihood	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	01/09/2002
Inj Illness:	NoLostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	0	***Latest Term Due Dt:***	04/18/2001
Inspection Begin Dt:	04/17/2001	***Cal Yr:***	2001
Negligence:	ModNegligence	***Latest Term Due Tm:***	0700
Inspection End Dt:	04/30/2001	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/30/2001
Violation No:	7991925	***Fiscal Yr:***	2001
Enforcement Area:		***Termination Time:***	1300
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/17/2001	***Vacate Time:***	
Violation Issue Dt:	04/17/2001	***Part Section:***	56.1000
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0825	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/08/2001	***Docket No:***	
Violation Occur Dt:	04/17/2001	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	0653258	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	06/28/2001
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	

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Controller ID:	M07059	***Last Action Dt:***	01/09/2002
Inj Illness:	LostDays	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/19/2001
Inspection Begin Dt:	04/17/2001	***Cal Yr:***	2001
Negligence:	ModNegligence	***Latest Term Due Tm:***	0700
Inspection End Dt:	04/30/2001	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/18/2001
Violation No:	7991931	***Fiscal Yr:***	2001
Enforcement Area:		***Termination Time:***	0715
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/17/2001	***Vacate Time:***	
Violation Issue Dt:	04/17/2001	***Part Section:***	56.14109(b)(3)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0903	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/08/2001	***Docket No:***	
Violation Occur Dt:	04/17/2001	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	0653258	***Amount Paid:***	55
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	06/28/2001
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Unlikely	***Orig Term Due Dt:***	
Controller ID:	M07059	***Last Action Dt:***	01/09/2002
Inj Illness:	Permanent	***Orig Term Due Tm:***	
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	04/18/2001
Inspection Begin Dt:	04/17/2001	***Cal Yr:***	2001
Negligence:	ModNegligence	***Latest Term Due Tm:***	0700
Inspection End Dt:	04/30/2001	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	04/18/2001
Violation No:	7991930	***Fiscal Yr:***	2001
Enforcement Area:		***Termination Time:***	0710
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	No
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:	04/17/2001	***Vacate Time:***	
Violation Issue Dt:	04/17/2001	***Part Section:***	56.14132(a)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	0900	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/08/2001	***Docket No:***	
Violation Occur Dt:	04/17/2001	***Section of Act 2:***	
Proposed Penalty:	55	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	55	***Contested Dt:***	
Violator Insp Day Cnt:	0		

Violation Details

Event No:	6669468	***Amount Paid:***	280
Initial Viol No:		***Contractor ID:***	
Mine Name:	PowerScreen 2100	***Bill Print Dt:***	07/13/2017
Replaced by Ord No:		***Cit Ord Safe:***	Citation
Mine Type:	Surface	***Last Action Cd:***	Paid
Likelihood:	Reasonably	***Orig Term Due Dt:***	06/08/2017
Controller ID:	M07059	***Last Action Dt:***	08/15/2017

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Inj Illness:	LostDays	***Orig Term Due Tm:***	0800
Controller Name:	Mike J LaPaglia	***Coal Metal Ind:***	M
No Affected:	1	***Latest Term Due Dt:***	06/08/2017
Inspection Begin Dt:	06/07/2017	***Cal Yr:***	2017
Negligence:	HighNegligence	***Latest Term Due Tm:***	0800
Inspection End Dt:	06/08/2017	***Cal Qtr:***	2
Written Notice:		***Termination Dt:***	06/08/2017
Violation No:	8995255	***Fiscal Yr:***	2017
Enforcement Area:		***Termination Time:***	1100
Violator ID:	L08940	***Fiscal Qtr:***	3
Special Assess:	No	***Termination Type:***	Terminated
Violator Name:	North County Sand & Gravel Inc	***Sig Sub:***	Yes
Primary or Mill:	Primary	***Vacate Dt:***	
Violator Type CD:	Operator	***Section of Act:***	
Right to Conf Dt:		***Vacate Time:***	
Violation Issue Dt:	06/07/2017	***Part Section:***	46.11(b)(4)
Asmt Generated Ind:	No	***Assess Case Stat Cd:***	Closed
Violation Issue Time:	1030	***Section of Act 1:***	104(a)
Final Ord Issue Dt:	08/27/2017	***Docket No:***	
Violation Occur Dt:	06/07/2017	***Section of Act 2:***	
Proposed Penalty:	280	***Docket Stat Cd:***	
Violator Violation Cnt:	0	***Contested Ind:***	No
Amount Due:	280	***Contested Dt:***	
Violator Insp Day Cnt:	3		

Site: ***NORTH COUNTY SAND & GRAVEL INC***
CA

MINES

Mine ID:	0404839	***SIC:***	144200
Entity Name:	KEYS CANYON PLANT	***Secondary SIC 1:***	000000
Status Code:	4	***Secondary SIC 2:***	000000
Mine Status:	Permanently Abandoned	***Secondary SIC 3:***	000000
Status Date:	19871121	***Secondary SIC 4:***	000000
Operation Class:	2 - Non-coal mining	***Secondary SIC 5:***	000000
Company Type:	Other	***Mines Prim SIC CD:***	144200
Assess Ctrl No:		***Primary SIC:***	Construction Sand and Gravel
Current Mine Name:	Keys Canyon Plant	***Primary SIC CD 1:***	1442
Current Mine Type:	Surface	***Primary SIC CD SFX:***	00
Current Mine Status:	Abandoned	***Secondary SIC CD:***	
Current Status Dt:	11/21/1987	***Secondary SIC:***	
Current Controller ID:	M07059	***Secondary SIC CD 1:***	
Curr Controller Name:	Mike J LaPaglia	***Sec SIC CD Sfx:***	
Curr Cont Begin Dt:	11/01/1986	***Primary Canvass CD:***	5
Curr Operator ID:	L08940	***Primary Canvass:***	SandAndGravel
Curr Operator Name:	North County Sand & Gravel Inc	***Sec Canvass CD:***	
Coal Metal Ind:	M	***Secondary Canvass:***	
Mines State:	CA	***Lat Deg:***	00
No of Shops:	0	***Lat Min:***	00
No of Plants:	0	***Lat Sec:***	00
No of Pits:	000	***Long Deg:***	000
Current 103I:		***Long Min:***	00
Current 103I Dt:		***Long Sec:***	00
Portable Operation:	No	***Longitude:***	
Portable FIPS St CD:		***Latitude:***	
Days Per Week:	0	***County Code:***	073
Hours Per Shift:		***State Code:***	06
Prod Shifts Per Day:		***District:***	M7
Maint Shifts Per Day:		***BOM State CD:***	04
No Employees:		***FIPS Cnty CD:***	073
Part48 Training:	Yes	***FIPS Cnty Nm:***	San Diego
Avg Mine Height:		***Cong Dist CD:***	48
Mine Gas Ctgry CD:		***Contact Title:***	Paglia Pres
Methane Liberation:		***Street:***	40485 D Murrieta Hot Springs Road # 115
No Producing Pits:		***Po Box:***	
No Non-Prod Pits:		***City:***	MURRIETA
No Tailing Ponds:		***State Abbr:***	CA
Pillar Recovery Used:	No	***FIPS State CD:***	06
Highwall Miner Used:	No	***State:***	California
Multiple Pits:	No	***Zip CD:***	92563
Miners Rep Ind:	No	***Country:***	USA

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Safety Committee Ind:	No	***Province:***	
Miles from Office:	0	***Postal CD:***	
Directions to Mine:		***Primary SIC CD:***	Construction Sand and Gravel
Office CD:	M7831	***State Abbrev:***	CA
Office Name:	San Bernardino CA Field Office		
Status Description:	The mine has been permanently shut down.		
Source File Desc:	Master Index File;MINES Data Set		

Site: ***NORTH COUNTY SAND & GRAVEL INC***
CA

MINES

Mine ID:	0405030	***SIC:***	144200
Entity Name:	BAUTISTA CANYON PLANT	***Secondary SIC 1:***	000000
Status Code:	4	***Secondary SIC 2:***	000000
Mine Status:	Permanently Abandoned	***Secondary SIC 3:***	000000
Status Date:	19940323	***Secondary SIC 4:***	000000
Operation Class:	2 - Non-coal mining	***Secondary SIC 5:***	000000
Company Type:	Other	***Mines Prim SIC CD:***	144200
Assess Ctrl No:		***Primary SIC:***	Construction Sand and Gravel
Current Mine Name:	Bautista Canyon Plant	***Primary SIC CD 1:***	1442
Current Mine Type:	Surface	***Primary SIC CD SFX:***	00
Current Mine Status:	Abandoned	***Secondary SIC CD:***	
Current Status Dt:	03/23/1994	***Secondary SIC:***	
Current Controller ID:	M07059	***Secondary SIC CD 1:***	
Curr Controller Name:	Mike J LaPaglia	***Sec SIC CD Sfx:***	
Curr Cont Begin Dt:	05/01/1989	***Primary Canvass CD:***	5
Curr Operator ID:	L08940	***Primary Canvass:***	SandAndGravel
Curr Operator Name:	North County Sand & Gravel Inc	***Sec Canvass CD:***	
Coal Metal Ind:	M	***Secondary Canvass:***	
Mines State:	CA	***Lat Deg:***	00
No of Shops:	0	***Lat Min:***	00
No of Plants:	0	***Lat Sec:***	00
No of Pits:	000	***Long Deg:***	000
Current 103I:		***Long Min:***	00
Current 103I Dt:		***Long Sec:***	00
Portable Operation:	No	***Longitude:***	
Portable FIPS St CD:		***Latitude:***	
Days Per Week:	0	***County Code:***	065
Hours Per Shift:		***State Code:***	06
Prod Shifts Per Day:		***District:***	M7
Maint Shifts Per Day:		***BOM State CD:***	04
No Employees:		***FIPS Cnty CD:***	065
Part48 Training:	Yes	***FIPS Cnty Nm:***	Riverside
Avg Mine Height:		***Cong Dist CD:***	43
Mine Gas Ctgry CD:		***Contact Title:***	Paglia Pres
Methane Liberation:		***Street:***	40485 D Murrieta Hot Springs Road # 115
No Producing Pits:		***Po Box:***	
No Non-Prod Pits:		***City:***	MURRIETA
No Tailing Ponds:		***State Abbr:***	CA
Pillar Recovery Used:	No	***FIPS State CD:***	06
Highwall Miner Used:	No	***State:***	California
Multiple Pits:	No	***Zip CD:***	92563
Miners Rep Ind:	No	***Country:***	USA
Safety Committee Ind:	No	***Province:***	
Miles from Office:	0	***Postal CD:***	
Directions to Mine:		***Primary SIC CD:***	Construction Sand and Gravel
Office CD:	M7831	***State Abbrev:***	CA
Office Name:	San Bernardino CA Field Office		
Status Description:	The mine has been permanently shut down.		
Source File Desc:	Master Index File;MINES Data Set		

Site: ***NORTH COUNTY SAND & GRAVEL INC***
CA

MINES

Mine ID:	0405235	***SIC:***	144200
Entity Name:	SANDERSON PLANT	***Secondary SIC 1:***	000000
Status Code:	4	***Secondary SIC 2:***	000000
Mine Status:	Permanently Abandoned	***Secondary SIC 3:***	000000
Status Date:	19950821	***Secondary SIC 4:***	000000

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Operation Class:	2 - Non-coal mining	***Secondary SIC 5:***	000000
Company Type:	Other	***Mines Prim SIC CD:***	144200
Assess Ctrl No:		***Primary SIC:***	Construction Sand and Gravel
Current Mine Name:	Sanderson Plant	***Primary SIC CD 1:***	1442
Current Mine Type:	Surface	***Primary SIC CD SFX:***	00
Current Mine Status:	Abandoned	***Secondary SIC CD:***	
Current Status Dt:	08/21/1995	***Secondary SIC:***	
Current Controller ID:	M07059	***Secondary SIC CD 1:***	
Curr Controller Name:	Mike J LaPaglia	***Sec SIC CD Sfx:***	
Curr Cont Begin Dt:	02/01/1994	***Primary Canvass CD:***	5
Curr Operator ID:	L08940	***Primary Canvass:***	SandAndGravel
Curr Operator Name:	North County Sand & Gravel Inc	***Sec Canvass CD:***	
Coal Metal Ind:	M	***Secondary Canvass:***	
Mines State:	CA	***Lat Deg:***	00
No of Shops:	0	***Lat Min:***	00
No of Plants:	0	***Lat Sec:***	00
No of Pits:	000	***Long Deg:***	000
Current 103I:		***Long Min:***	00
Current 103I Dt:		***Long Sec:***	00
Portable Operation:	No	***Longitude:***	
Portable FIPS St CD:		***Latitude:***	
Days Per Week:	0	***County Code:***	065
Hours Per Shift:		***State Code:***	06
Prod Shifts Per Day:		***District:***	M7
Maint Shifts Per Day:		***BOM State CD:***	04
No Employees:		***FIPS Cnty CD:***	065
Part48 Training:	Yes	***FIPS Cnty Nm:***	Riverside
Avg Mine Height:		***Cong Dist CD:***	43
Mine Gas Ctgry CD:		***Contact Title:***	Paglia Pres
Methane Liberation:		***Street:***	40485 D Murrieta Hot Springs Rd #115
No Producing Pits:		***Po Box:***	
No Non-Prod Pits:		***City:***	MURRIETA
No Tailing Ponds:		***State Abbr:***	CA
Pillar Recovery Used:	No	***FIPS State CD:***	06
Highwall Miner Used:	No	***State:***	California
Multiple Pits:	No	***Zip CD:***	92563
Miners Rep Ind:	No	***Country:***	USA
Safety Committee Ind:	No	***Province:***	
Miles from Office:	0	***Postal CD:***	
Directions to Mine:		***Primary SIC CD:***	Construction Sand and Gravel
Office CD:	M7831	***State Abbrev:***	CA
Office Name:	San Bernardino CA Field Office		
Status Description:	The mine has been permanently shut down.		
Source File Desc:	Master Index File;MINES Data Set		

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Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13 and E1527-21, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

Formerly Utilized Sites Remedial Action Program: DOE FUSRAP

The U.S. Department of Energy (DOE) established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

Government Publication Date: Mar 4, 2017

National Priority List: NPL

Sites on the United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Jan 25, 2022

National Priority List - Proposed: PROPOSED NPL

Sites proposed - by the EPA, the state agency, or concerned citizens - for addition to the NPL due to contamination by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Jan 25, 2022

Deleted NPL: DELETED NPL

Sites deleted from the United States Environmental Protection Agency (EPA)'s National Priorities List. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Jan 25, 2022

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SEMS List 8R Active Site Inventory: SEMS

The Superfund Program has deployed the Superfund Enterprise Management System (SEMS), which integrates multiple legacy systems into a comprehensive tracking and reporting tool. This inventory contains active sites evaluated by the Superfund program that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted.

Government Publication Date: Feb 24, 2022

SEMS List 8R Archive Sites: SEMS ARCHIVE

The Superfund Enterprise Management System (SEMS) Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time.

Government Publication Date: Feb 24, 2022

Inventory of Open Dumps, June 1985: ODI

The Resource Conservation and Recovery Act (RCRA) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

Comprehensive Environmental Response, Compensation and Liability Information System - CERCLIS: CERCLIS

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

EPA Report on the Status of Open Dumps on Indian Lands: IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

CERCLIS - No Further Remedial Action Planned: CERCLIS NFRAP

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens: CERCLIS LIENS

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jan 30, 2014

RCRA CORRACTS-Corrective Action: RCRA CORRACTS

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Jan 31, 2022

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RCRA non-CORRACTS TSD Facilities: RCRA TSD

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Government Publication Date: Jan 31, 2022

RCRA Generator List: RCRA LQG

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste.

Government Publication Date: Jan 31, 2022

RCRA Small Quantity Generators List: RCRA SQG

RCRA Info is the EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Small Quantity Generators (SQGs) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Government Publication Date: Jan 31, 2022

RCRA Very Small Quantity Generators List: RCRA VSQG

RCRA Info is the EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Very Small Quantity Generators (VSQG) generate 100 kilograms or less per month of hazardous waste, or one kilogram or less per month of acutely hazardous waste. Additionally, VSQG may not accumulate more than 1,000 kilograms of hazardous waste at any time.

Government Publication Date: Jan 31, 2022

RCRA Non-Generators: RCRA NON GEN

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Jan 31, 2022

RCRA Sites with Controls: RCRA CONTROLS

List of Resource Conservation and Recovery Act (RCRA) facilities with institutional controls in place. RCRA gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Government Publication Date: Jan 31, 2022

Federal Engineering Controls-ECs: FED ENG

Engineering controls (ECs) encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Dec 30, 2021

Federal Institutional Controls- ICs: FED INST

Institutional controls are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's (United States Environmental Protection Agency) expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site.

Government Publication Date: Dec 30, 2021

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Land Use Control Information System: LUCIS

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

Government Publication Date: Sep 1, 2006

Institutional Control Boundaries at NPL sites: NPL IC

Boundaries of Institutional Control areas at sites on the United States Environmental Protection Agency (EPA)'s National Priorities List, or Proposed or Deleted, made available by the EPA's Shared Enterprise Geodata and Services (SEGS). United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. Institutional controls are non-engineered instruments such as administrative and legal controls that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy.

Government Publication Date: Jan 25, 2022

Emergency Response Notification System: ERNS 1982 TO 1986

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System: ERNS 1987 TO 1989

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System: ERNS

Database of oil and hazardous substances spill reports made available by the United States Coast Guard National Response Center (NRC). The NRC fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. These data contain initial incident data that has not been validated or investigated by a federal/state response agency.

Government Publication Date: Dec 31, 2021

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database: FED BROWNFIELDS

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Aug 20, 2021

FEMA Underground Storage Tank Listing: FEMA UST

The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security maintains a list of FEMA owned underground storage tanks.

Government Publication Date: Dec 31, 2017

Facility Response Plan: FRP

List of facilities that have submitted Facility Response Plans (FRP) to EPA. Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit Facility Response Plans (FRPs). Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments.

Government Publication Date: Dec 2, 2020

Historical Gas Stations: HIST GAS STATIONS

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

Government Publication Date: Jul 1, 1930

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Petroleum Refineries: REFN

List of petroleum refineries from the U.S. Energy Information Administration (EIA) Refinery Capacity Report. Includes operating and idle petroleum refineries (including new refineries under construction) and refineries shut down during the previous year located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions. Survey locations adjusted using public data.

Government Publication Date: Jul 10, 2020

Petroleum Product and Crude Oil Rail Terminals: BULK TERMINAL

List of petroleum product and crude oil rail terminals made available by the U.S. Energy Information Administration (EIA). Includes operable bulk petroleum product terminals located in the 50 States and the District of Columbia with a total bulk shell storage capacity of 50,000 barrels or more, and/or the ability to receive volumes from tanker, barge, or pipeline; also rail terminals handling the loading and unloading of crude oil that were active between 2017 and 2018. Petroleum product terminals comes from the EIA-815 Bulk Terminal and Blender Report, which includes working, shell in operation, and shell idle for several major product groupings. Survey locations adjusted using public data.

Government Publication Date: Apr 28, 2020

LIEN on Property: SEMS LIEN

The EPA Superfund Enterprise Management System (SEMS) provides LIEN information on properties under the EPA Superfund Program.

Government Publication Date: Feb 24, 2022

Superfund Decision Documents: SUPERFUND ROD

This database contains a listing of decision documents for Superfund sites. Decision documents serve to provide the reasoning for the choice of (or) changes to a Superfund Site cleanup plan. The decision documents include Records of Decision (ROD), ROD Amendments, Explanations of Significant Differences (ESD), along with other associated memos and files. This information is maintained and made available by the US EPA (Environmental Protection Agency).

Government Publication Date: Nov 16, 2021

State

State Response Sites: RESPONSE

A list of identified confirmed release sites where the Department of Toxic Substances Control (DTSC) is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. This database is state equivalent NPL.

Government Publication Date: Jan 6, 2022

EnviroStor Database: ENVIROSTOR

The EnviroStor Data Management System is made available by the Department of Toxic Substances Control (DTSC). Includes Corrective Action sites, Tiered Permit sites, Historical Sites and Evaluation/Investigation sites. This database is state equivalent CERCLIS.

Government Publication Date: Jan 6, 2022

Delisted State Response Sites: DELISTED ENVS

Sites removed from the list of State Response Sites made available by the EnviroStor Data Management System, Department of Toxic Substances Control (DTSC).

Government Publication Date: Jan 6, 2022

Solid Waste Information System (SWIS): SWF/LF

The Solid Waste Information System (SWIS) database made available by the Department of Resources Recycling and Recovery (CalRecycle) contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites.

Government Publication Date: Feb 2, 2022

Solid Waste Disposal Sites with Waste Constituents Above Hazardous Waste Levels: SWRCB SWF

This is a list of solid waste disposal sites identified by California State Water Resources Control Board with waste constituents above hazardous waste levels outside the waste management unit.

Government Publication Date: Sep 20, 2006

Waste Management Unit Database: WMUD

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The Waste Management Unit Database System tracks and inventories waste management units. CCR Title 27 contains criteria stating that Waste Management Units are classified according to their ability to contain wastes. Containment shall be determined by geology, hydrology, topography, climatology, and other factors relating to the ability of the Unit to protect water quality. Water Code Section 13273.1 requires that operators submit a water quality solid waste assessment test (SWAT) report to address leak status. The WMUDS was last updated by the State Water Resources control board in 2000.

Government Publication Date: Jan 1, 2000

EnviroStor Hazardous Waste Facilities: HWP

A list of hazardous waste facilities including permitted, post-closure and historical facilities found in the Department of Toxic Substances Control (DTSC) EnviroStor database.

Government Publication Date: Jan 6, 2022

Sites Listed in the Solid Waste Assessment Test (SWAT) Program Report: SWAT

In a 1993 Memorandum of Understanding, the State Water Resources Control Board (SWRCB) agreed to submit a comprehensive report on the Solid Waste Assessment Test (SWAT) Program to the California Integrated Waste Management Board (CIWMB). This report summarizes the work completed to date on the SWAT Program, and addresses both the impacts that leakage from solid waste disposal sites (SWDS) may have upon waters of the State and the actions taken to address such leakage.

Government Publication Date: Dec 31, 1995

Construction and Demolition Debris Recyclers: C&D DEBRIS RECY

This listing of Construction and Demolition Debris Recyclers is maintained by the California Intergrated Waste Management Board-common C&D materials include lumber, drywall, metals, masonry (brick, concrete, etc.), carpet, plastic, pipe, rocks, dirt, paper, cardboard, or green waste related to land development.

Government Publication Date: Jun 20, 2018

Recycling Centers: RECYCLING

This list of Certified Recycling Centers that are operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Dec 17, 2021

Listing of Certified Processors: PROCESSORS

This list of Certified Processors that are operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Dec 20, 2021

Listing of Certified Dropoff, Collection, and Community Service Programs: CONTAINER RECY

This list of Certified Dropoff, Collection, and Community Service Programs (non-buyback) operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Dec 17, 2021

Land Disposal Sites: LDS

Land Disposal Sites in GeoTracker, the State Water Resources Control Board (SWRCB)'s data management system. The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units. Waste management units include waste piles, surface impoundments, and landfills.

Government Publication Date: Feb 15, 2022

Leaking Underground Fuel Tank Reports: LUST

List of Leaking Underground Storage Tanks within the Cleanup Sites data in GeoTracker database. GeoTracker is the State Water Resources Control Board's (SWRCB) data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense and Site Cleanup Program) as well as permitted facilities such as operating Underground Storage Tanks. The Leak Prevention Program that overlooks LUST sites is the SWRCB in California's Environmental Protection Agency.

Government Publication Date: Feb 15, 2022

Delisted Leaking Storage Tanks: DELISTED LST

List of Leaking Underground Storage Tanks (LUST) cleanup sites removed from GeoTracker, the State Water Resources Control Board (SWRCB)'s database system, as well as sites removed from the SWRCB's list of UST Case closures.

Government Publication Date: Feb 15, 2022

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Permitted Underground Storage Tank (UST) in GeoTracker: UST

List of Permitted Underground Storage Tank (UST) sites made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA).

Government Publication Date: Jan 3, 2022

Proposed Closure of Underground Storage Tank Cases: UST CLOSURE

List of UST cases that are being considered for closure by either the California Environmental Protection Agency, State Water Resources Control Board or the Executive Director that have been posted for a 60-day public comment period.

Government Publication Date: May 5, 2021

Historical Hazardous Substance Storage Information Database: HHSS

The Historical Hazardous Substance Storage database contains information collected in the 1980s from facilities that stored hazardous substances. The information was originally collected on paper forms, was later transferred to microfiche, and recently indexed as a searchable database. When using this database, please be aware that it is based upon self-reported information submitted by facilities which has not been independently verified. It is unlikely that every facility responded to the survey and the database should not be expected to be a complete inventory of all facilities that were operating at that time. This database is maintained by the California State Water Resources Control Board's (SWRCB) Geotracker.

Government Publication Date: Aug 27, 2015

Statewide Environmental Evaluation and Planning System: UST SWEEPS

The Statewide Environmental Evaluation and Planning System (SWEEPS) is a historical listing of active and inactive underground storage tanks made available by the California State Water Resources Control Board (SWRCB).

Government Publication Date: Oct 1, 1994

Aboveground Storage Tanks: AST

A statewide list from 2009 of aboveground storage tanks (ASTs) made available by the Cal FIRE Office of the State Fire Marshal (OSFM). This list is no longer maintained or updated by the Cal FIRE OSFM.

Government Publication Date: Aug 31, 2009

SWRCB Historical Aboveground Storage Tanks: AST SWRCB

A list of aboveground storage tanks made available by the California State Water Resources Control Board (SWRCB). Effective January 1, 2008, the Certified Unified Program Agencies (CUPAs) are vested with the responsibility and authority to implement the Aboveground Petroleum Storage Act (APSA).

Government Publication Date: Dec 1, 2007

Oil and Gas Facility Tanks: TANK OIL GAS

Locations of oil and gas tanks that fall under the jurisdiction of the Geologic Energy Management Division of the California Department of Conservation (CalGEM) (CCR 1760). CalGEM was formerly the Division of Oil, Gas, and Geothermal Resources (DOGGR).

Government Publication Date: Dec 9, 2021

Delisted Storage Tanks: DELISTED TNK

This database contains a list of storage tank sites that were removed by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA) and the Cal FIRE Office of State Fire Marshal (OSFM).

Government Publication Date: Jan 25, 2022

California Environmental Reporting System (CERS) Tanks: CERS TANK

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Dec 8, 2021

Delisted California Environmental Reporting System (CERS) Tanks: DELISTED CTNK

This database contains a list of Aboveground Petroleum Storage and Underground Storage Tank sites that were removed from in the California Environmental Protection Agency (CalEPA) Regulated Site Portal.

Government Publication Date: Dec 8, 2021

Historical Hazardous Substance Storage Container Information - Facility Summary: HIST TANK

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The State Water Resources Control Board maintained the Hazardous Substance Storage Containers listing and inventory in th 1980s. This facility summary lists historic tank sites where the following container types were present: farm motor vehicle fuel tanks; waste tanks; sumps; pits, ponds, lagoons, and others; and all other product tanks. This set, published in May 1988, lists facility and owner information, as well as the number of containers. This data is historic and will not be updated.

Government Publication Date: May 27, 1988

Site Mitigation and Brownfields Reuse Program Facility Sites with Land Use Restrictions: LUR

The Department of Toxic Substances Control (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents land use restrictions that are active. Some sites have multiple land use restrictions.

Government Publication Date: Jan 6, 2022

CALSITES Database: CALSITES

This historical database was maintained by the Department of Toxic Substance Control (DTSC) for more than a decade. CALSITES contains information on Brownfield properties with confirmed or potential hazardous contamination. In 2006, DTSC introduced EnviroStor as the latest Brownfields site database.

Government Publication Date: May 1, 2004

Hazardous Waste Management Program Facility Sites with Deed / Land Use Restrictions: HLUR

The Department of Toxic Substances Control (DTSC) Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Government Publication Date: Feb 18, 2021

Deed Restrictions and Land Use Restrictions: DEED

List of Deed Restrictions, Land Use Restrictions and Covenants in GeoTracker made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency. A deed restriction (land use covenant) may be required to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to residual hazardous materials.

Government Publication Date: Feb 15, 2022

Voluntary Cleanup Program: VCP

List of sites in the Voluntary Cleanup Program made available by the Department of Toxic Substances and Control (DTSC). The Voluntary Cleanup Program was designed to respond to lower priority sites. Under the Voluntary Cleanup Program, DTSC enters site-specific agreements with project proponents for DTSC oversight of site assessment, investigation, and/or removal or remediation activities, and the project proponents agree to pay DTSC's reasonable costs for those services.

Government Publication Date: Jan 6, 2022

GeoTracker Cleanup Program Sites: CLEANUP SITES

A list of Cleanup Program sites in the state of California made available by The State Water Resources Control Board (SWRCB) of the California Environmental Protection Agency (EPA). SWRCB tracks leaking underground storage tank cleanups as well as other water board cleanups.

Government Publication Date: Feb 15, 2022

Delisted County Records: DELISTED COUNTY

Records removed from county or CUPA databases. Records may be removed from the county lists made available by the respective county departments because they are inactive, or because they have been deemed to be below reportable thresholds.

Government Publication Date: Dec 27, 2021

Tribal

Leaking Underground Storage Tanks (LUSTs) on Indian Lands: INDIAN LUST

LUSTs on Tribal/Indian Lands in Region 9, which includes California.

Government Publication Date: Oct 12, 2021

Underground Storage Tanks (USTs) on Indian Lands: INDIAN UST

USTs on Tribal/Indian Lands in Region 9, which includes California.

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Government Publication Date: Oct 12, 2021

Delisted Tribal Leaking Storage Tanks: DELISTED ILST

Leaking Underground Storage Tank facilities which have been removed from the Regional Tribal LUST lists made available by the EPA.

Government Publication Date: Oct 12, 2021

Delisted Tribal Underground Storage Tanks: DELISTED IUST

Underground Storage Tank facilities which have been removed from the Regional Tribal UST lists made available by the EPA.

Government Publication Date: Oct 13, 2021

County

Riverside County - Local Oversight Program List: LOP RIVERSIDE

A list of Leaking Underground Storage Tank (LUST) facilities in Riverside County. This list is made available by Riverside County Department of Environmental Health. Environmental Cleanup Program provides oversight of assessments and cleanups at properties that have been, or may have been, contaminated with hazardous substances from LUSTs or releases associated with other commercial/industrial use.

Government Publication Date: Jan 18, 2022

Riverside County - Underground Storage Tanks List: UST RIVERSIDE

A list of registered Underground Storage Tank (UST) sites in Riverside County. This list is made available by Riverside County Department of Environmental Health. The Hazardous Materials Management Branch (HMMB) regulates and oversees the inspections of constructions, repairs, upgrades, system operation and removal of UST systems.

Government Publication Date: Jan 18, 2022

Additional Environmental Record Sources

Federal

Facility Registry Service/Facility Index: FINDS/FRS

The Facility Registry Service (FRS) is a centrally managed database that identifies facilities, sites, or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, and data collected from EPA's Central Data Exchange registrations and data management personnel. This list is made available by the Environmental Protection Agency (US EPA).

Government Publication Date: Nov 2, 2020

Toxics Release Inventory (TRI) Program: TRIS

The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U. S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment.

Government Publication Date: Aug 24, 2021

Perfluorinated Alkyl Substances (PFAS) Releases: PFAS TRI

List of Toxics Release Inventory (TRI) facilities at which the reported chemical is a Per- or polyfluorinated alkyl substance (PFAS) included in the Environmental Protection Agency (EPA)'s consolidated PFAS Master List of PFAS Substances. The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment.

Government Publication Date: Aug 24, 2021

PFOA/PFOS Contaminated Sites: PFAS NPL

List of sites where PFOA or PFOS contaminants have been found in drinking water or soil. Made available by the Federal Environmental Protection Agency (EPA).

Government Publication Date: Jan 11, 2022

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Perfluorinated Alkyl Substances (PFAS) Water Quality: PFAS WATER

The Water Quality Portal (WQP) is a cooperative service sponsored by the United States Geological Survey (USGS), the Environmental Protection Agency (EPA), and the National Water Quality Monitoring Council (NWQMC). This listing includes records from the Water Quality Portal where the characteristic (environmental measurement) is in the Environmental Protection Agency (EPA)'s consolidated PFAS Master List of PFAS Substances.

Government Publication Date: Jul 20, 2020

SSEHRI PFAS Contamination Sites: PFAS SSEHRI

This PFAS Contamination Site Tracker database is compiled by the Social Science Environmental Health Research Institute (SSEHRI) at Northeastern University. According to the SSEHRI, the database records qualitative and quantitative data from each known site of PFAS contamination, including timeline of discovery, sources, levels, health impacts, community response, and government response. The goal of this database is to compile information and support public understanding of the rapidly unfolding issue of PFAS contamination. All data presented was extracted from government websites, news articles, or publicly available documents, and this is cited in the tracker. Disclaimer: The source conveys this database undergoes regular updates as new information becomes available, some sites may be missing and/or contain information that is incorrect or outdated, as well as their information represents all contamination sites SSEHRI is aware of, not all possible contamination sites. This data is not intended to be used for legal purposes. Limited location details are available with this data. Access the following for the most current informations https://pfasproject.com/pfas-contamination-site-tr acker/

Government Publication Date: Dec 12, 2019

Hazardous Materials Information Reporting System: HMIRS

US DOT - Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Incidents Reports Database taken from Hazmat Intelligence Portal, U.S. Department of Transportation.

Government Publication Date: Sep 1, 2020

National Clandestine Drug Labs: NCDL

The U.S. Department of Justice ("the Department") provides this data as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy.

Government Publication Date: Nov 22, 2021

Toxic Substances Control Act: TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The CDR enables EPA to collect and publish information on the manufacturing, processing, and use of commercial chemical substances and mixtures (referred to hereafter as chemical substances) on the TSCA Chemical Substance Inventory (TSCA Inventory). This includes current information on chemical substance production volumes, manufacturing sites, and how the chemical substances are used. This information helps the Agency determine whether people or the environment are potentially exposed to reported chemical substances. EPA publishes submitted CDR data that is not Confidential Business Information (CBI).

Government Publication Date: Apr 11, 2019

Hist TSCA: HIST TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The 2006 IUR data summary report includes information about chemicals manufactured or imported in quantities of 25,000 pounds or more at a single site during calendar year 2005. In addition to the basic manufacturing information collected in previous reporting cycles, the 2006 cycle is the first time EPA collected information to characterize exposure during manufacturing, processing and use of organic chemicals. The 2006 cycle also is the first time manufacturers of inorganic chemicals were required to report basic manufacturing information.

Government Publication Date: Dec 31, 2006

FTTS Administrative Case Listing: FTTS ADMIN

An administrative case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

FTTS Inspection Case Listing: FTTS INSP

An inspection case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

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Potentially Responsible Parties List: PRP

Early in the cleanup process, the Environmental Protection Agency (EPA) conducts a search to find the potentially responsible parties (PRPs). EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site.

Government Publication Date: Jan 18, 2022

State Coalition for Remediation of Drycleaners Listing: SCRD DRYCLEANER

The State Coalition for Remediation of Drycleaners (SCRD) was established in 1998, with support from the U.S. Environmental Protection Agency (EPA) Office of Superfund Remediation and Technology Innovation. Coalition members are states with mandated programs and funding for drycleaner site remediation. Current members are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Government Publication Date: Nov 08, 2017

Integrated Compliance Information System (ICIS): ICIS

The Integrated Compliance Information System (ICIS) is a system that provides information for the Federal Enforcement and Compliance (FE&C) and the National Pollutant Discharge Elimination System (NPDES) programs. The FE&C component supports the Environmental Protection Agency's (EPA) Civil Enforcement and Compliance program activities. These activities include Compliance Assistance, Compliance Monitoring and Enforcement. The NPDES program supports tracking of NPDES permits, limits, discharge monitoring data and other program reports.

Government Publication Date: Oct 14, 2021

Drycleaner Facilities: FED DRYCLEANERS

A list of drycleaner facilities from Enforcement and Compliance History Online (ECHO) online search. The Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

Government Publication Date: May 5, 2021

Delisted Drycleaner Facilities: DELISTED FED DRY

List of sites removed from the list of Drycleaner Facilities (sites in the EPA's Integrated Compliance Information System (ICIS) with NAIC or SIC codes identifying the business as a drycleaner establishment).

Government Publication Date: May 5, 2021

Formerly Used Defense Sites: FUDS

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DoD) is responsible for an environmental restoration. This list is published by the U.S. Army Corps of Engineers.

Government Publication Date: May 26, 2021

Former Military Nike Missile Sites: FORMER NIKE

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

Government Publication Date: Dec 2, 1984

PHMSA Pipeline Safety Flagged Incidents: PIPELINE INCIDENT

A list of flagged pipeline incidents made available by the U.S. Department of Transportation (US DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA regulations require incident and accident reports for five different pipeline system types.

Government Publication Date: Jul 7, 2020

Material Licensing Tracking System (MLTS): MLTS

A list of sites that store radioactive material subject to the Nuclear Regulatory Commission (NRC) licensing requirements. This list is maintained by the NRC. As of September 2016, the NRC no longer releases location information for sites. Site locations were last received in July 2016.

Government Publication Date: May 11, 2021

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Historic Material Licensing Tracking System (MLTS) sites: HIST MLTS

A historic list of sites that have inactive licenses and/or removed from the Material Licensing Tracking System (MLTS). In some cases, a site is removed from the MLTS when the state becomes an "Agreement State". An Agreement State is a State that has signed an agreement with the Nuclear Regulatory Commission (NRC) authorizing the State to regulate certain uses of radioactive materials within the State.

Government Publication Date: Jan 31, 2010

Mines Master Index File: MINES

The Master Index File (MIF) contains mine identification numbers issued by the Department of Labor Mine Safety and Health Administration (MSHA) for mines active or opened since 1971. Note that addresses may or may not correspond with the physical location of the mine itself.

Government Publication Date: Nov 2, 2021

Surface Mining Control and Reclamation Act Sites: SMCRA

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by the Office of Surface Mining Reclamation and Enforcement (OSMRE) to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of Abandoned Mine Land (AML) impacts, as well as information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Government Publication Date: Dec 18, 2020

Mineral Resource Data System: MRDS

The Mineral Resource Data System (MRDS) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS. The USGS has ceased systematic updates of the MRDS database with their focus more recently on deposits of critical minerals while providing a well-documented baseline of historical mine locations from USGS topographic maps.

Government Publication Date: Mar 15, 2016

Uranium Mill Tailings Radiation Control Act Sites: URANIUM

The Legacy Management Office of the Department of Energy (DOE) manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The L.M. Office manages this database of sites registered under the Uranium Mill Tailings Control Act (UMTRCA).

Government Publication Date: Mar 4, 2017

Alternative Fueling Stations: ALT FUELS

List of alternative fueling stations made available by the US Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Biodiesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE). The National Renewable Energy Laboratory (NREL) obtains information about new stations from trade media, Clean Cities coordinators, a Submit New Station form on the Station Locator website, and through collaborating with infrastructure equipment and fuel providers, original equipment manufacturers (OEMs), and industry groups.

Government Publication Date: Dec 21, 2021

Superfunds Consent Decrees: CONSENT DECREES

A list of Superfund consent decrees made available by the Department of Justice, Environment & Natural Resources Division (ENRD).

Government Publication Date: Sep 30, 2018

Registered Pesticide Establishments: SSTS

List of active EPA-registered foreign and domestic pesticide-producing and device-producing establishments based on data from the Section Seven Tracking System (SSTS). The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 7 requires that facilities producing pesticides, active ingredients, or devices be registered. The list of establishments is made available by the EPA.

Government Publication Date: Apr 13, 2021

Polychlorinated Biphenyl (PCB) Notifiers: PCB

Facilities included in the national list of facilities that have notified the United States Environmental Protection Agency (EPA) of Polychlorinated Biphenyl (PCB) activities. Any company or person storing, transporting or disposing of PCBs or conducting PCB research and development must notify the EPA and receive an identification number.

Government Publication Date: Jan 20, 2022

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State

Dry Cleaning Facilities: DRYCLEANERS

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial, linen supply, commercial laundry, dry cleaning and pressing machines - Coin Operated Laundry and Dry Cleaning. This is provided by the Department of Toxic Substance Control.

Government Publication Date: Dec 20, 2021

Delisted Drycleaners: DELISTED DRYCLEANERS

Sites removed from the list of drycleaner related facilities that have EPA ID numbers, made available by the California Department of Toxic Substance Control.

Government Publication Date: Feb 28, 2020

Non-Toxic Dry Cleaning Incentive Program: DRYC GRANT

A list of grant recipients of the Non-Toxic Dry Cleaning Incentive Program made available by the California Air Resources Board (CARB). The program provides grants to eligible dry cleaning businesses to assist them in transitioning away from PERC machines to alternative non-toxic and non-smog forming technologies.

Government Publication Date: Feb 28, 2020

Per- and Polyfluoroalkyl Substances (PFAS): PFAS

List of sites from the State Water Resources Control Board (SWRCB)'s GeoTracker at which one or more of the potential contaminants of concern are in the PFAS Master List of PFAS Substances made available by the Environmental Protection Agency (US EPA).

Government Publication Date: Feb 15, 2022

PFOA/PFOS Groundwater: PFAS GW

A list of water wells from the Groundwater Ambient Monitoring and Assessment Program (GAMA) Groundwater Information System with the groundwater chemical perfluorooctanoic acid (PFOA) (NL = 0.014 UG/L) or perfluorooctanoic sulfonate (PFOS) (NL = 0.013 UG/L). The GAMA Groundwater Information System search is made available by California Water Boards.

Government Publication Date: Oct 22, 2020

Hazardous Waste and Substances Site List - Site Cleanup: HWSS CLEANUP

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. This list is published by California Department of Toxic Substance Control.

Government Publication Date: May 20, 2021

Toxic Pit Cleanup Act Sites: TOXIC PITS

The Toxic Pits Cleanup Act (TPCA) list identifies sites suspected of containing hazardous substances where cleanup has not yet been completed. This list was maintained by the State Water Resources Control Board (SWRCB), is not longer maintained, and updates are not planned.

Government Publication Date: Jul 1, 1995

List of Hazardous Waste Facilities Subject to Corrective Action: DTSC HWF

This is a list of hazardous waste facilities identified in Health and Safety Code (HSC) § 25187.5. These facilities are those where Department of Toxic Substances Control (DTSC) has taken or contracted for corrective action because a facility owner/operator has failed to comply with a date for taking corrective action in an order issued under HSC § 25187, or because DTSC determined that immediate corrective action was necessary to abate an imminent or substantial endangerment.

Government Publication Date: Jul 18, 2016

EnviroStor Inspection, Compliance, and Enforcement: INSP COMP ENF

A list of permitted facilities with inspections and enforcements tracked in the Department of Toxic Substance Control (DTSC) EnviroStor.

Government Publication Date: Apr 29, 2021

School Property Evaluation Program Sites: SCH

A list of sites registered with The Department of Toxic Substances Control (DTSC) School Property Evaluation and Cleanup (SPEC) Division. SPEC is responsible for assessing, investigating and cleaning up proposed school sites. The Division ensures that selected properties are free of contamination or, if the properties were previously contaminated, that they have been cleaned up to a level that protects the students and staff who will occupy the new school.

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Government Publication Date: Jan 6, 2022

California Hazardous Material Incident Report System (CHMIRS): CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS). This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Feb 8, 2022

Historical California Hazardous Material Incident Report System (CHMIRS): HIST CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS) prior to 1993. This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Jan 1, 1993

Hazardous Waste Manifest Data: HAZNET

A list of hazardous waste manifests received each year by Department of Toxic Substances Control (DTSC). The volume of manifests is typically 900,000 - 1,000,000 annually, representing approximately 450,000 - 500,000 shipments.

Government Publication Date: Oct 24, 2016

Historical Hazardous Waste Manifest Data: HIST MANIFEST

A list of historic hazardous waste manifests received by the Department of Toxic Substances Control (DTSC) from year the 1980 to 1992. The volume of manifests is typically 900,000 - 1,000,000 annually, representing approximately 450,000 - 500,000 shipments.

Government Publication Date: Dec 31, 1992

DTSC Registered Hazardous Waste Transporters: HW TRANSPORT

The California Department of Toxic Substances Control (DTSC) maintains this list of Registered Hazardous Waste Transporters.

Government Publication Date: Oct 19, 2020

Registered Waste Tire Haulers: WASTE TIRE

This list of registered waste tire haulers is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Dec 17, 2021

California Medical Waste Management Program Facility List: MEDICAL WASTE

This list of Medical Waste Management Program Facilities is maintained by the California Department of Public Health. The Medical Waste Management Program (MWMP) regulates the generation, handling, storage, treatment, and disposal of medical waste by providing oversight for the implementation of the Medical Waste Management Act (MWMA). The MWMP permits and inspects all medical waste off-site treatment facilities, medical waste transporters, and medical waste transfer stations. This list contains transporters, treatment, and transfer facilities.

Government Publication Date: Dec 31, 2020

Historical Cortese List: HIST CORTESE

List of sites which were once included on the Cortese list. The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements for providing information about the location of hazardous sites.

Government Publication Date: Nov 13, 2008

Cease and Desist Orders and Cleanup and Abatement Orders: CDO/CAO

The California Environment Protection Agency "Cortese List" of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO). This list contains many CDOs and CAOs that do NOT concern the discharge of wastes that are hazardous materials. Many of the listed orders concern, as examples, discharges of domestic sewage, food processing wastes, or sediment that do not contain hazardous materials, but the Water Boards' database does not distinguish between these types of orders.

Government Publication Date: Dec 6, 2021

California Environmental Reporting System (CERS) Hazardous Waste Sites: CERS HAZ

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Dec 8, 2021

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Delisted Environmental Reporting System (CERS) Hazardous Waste Sites: DELISTED HAZ

This database contains a list of sites that were removed from the California Environmental Protection Agency (CalEPA) in the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator.

Government Publication Date: Nov 29, 2018

Sites in GeoTracker: GEOTRACKER

GeoTracker is the State Water Resource Control Boards' data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater. This is a list of sites in GeoTracker that aren't otherwise categorized as LUST, Land Disposal Sites (LDS), Cleanup Sites, or sites having Waste Discharge Requirements (WDR). This listing includes program types such as Underground Injection Control (UIC), Confined Animal Facilities (CAF), Irrigated Lands Regulatory Program, plans, and non-case information.

Government Publication Date: Feb 15, 2022

Mines Listing: MINE

This list includes mine site locations extracted from the Mines Online database, maintained by the California Department of Conservation. Mines Online (MOL) is an interactive web map designed with GIS features that provide information such as the mine name, mine status, commodity sold, location, and other mine specific data. Please note: Mine location information is provided to assist experts in determining the location of mine operators in accordance with California Civil Code section 1103.4 and reflects information reported by mine operators in annual reports provided under Public Resources Code section 2207. While the Division of Mine Reclamation (DMR) attempts to populate MOL with accurate location information, the DMR cannot guarantee the accuracy of operator reported location information.

Government Publication Date: Dec 17, 2021

Recorded Environmental Cleanup Liens: LIEN

The California Department of Toxic Substance Control (DTSC) maintains this list of liens placed upon real properties. A lien is utilized by the DTSC to obtain reimbursement from responsible parties for costs associated with the remediation of contaminated properties.

Government Publication Date: Dec 15, 2021

Waste Discharge Requirements: WASTE DISCHG

List of sites in California State Water Resources Control Board (SWRCB) Waste Discharge Requirements (WDRs) Program in California, made available by the SWRCB via GeoTracker. The WDR program regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Government Publication Date: Feb 15, 2022

Toxic Pollutant Emissions Facilities: EMISSIONS

A list of criteria and toxic pollutant emissions data for facilities in California made available by the California Environmental Protection Agency - Air Resources Board (ARB). Risk data may be based on previous inventory submittals. The toxics data are submitted to the ARB by the local air districts as requirement of the Air Toxics "Hot Spots" Program. This program requires emission inventory updates every four years.

Government Publication Date: Dec 31, 2019

Clandestine Drug Lab Sites: CDL

The Department of Toxic Substances Control (DTSC) maintains a listing of drug lab sites. DTSC is responsible for removal and disposal of hazardous substances discovered by law enforcement officials while investigating illegal/clandestine drug laboratories.

Government Publication Date: Jan 19, 2021

Tribal

No Tribal additional environmental record sources available for this State.

County

Riverside County - Hazardous Waste Generator Sites List: HWG RIVERSIDE

A list of Hazardous Waste Generator Sites in the County of Riverside. This list is made available by Riverside County Department of Environmental Health which has been designated as the CUPA for the County.

Government Publication Date: Jan 18, 2022

Riverside County - Disclosure Facility List: HZH RIVERSIDE

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A list of facilities disclosed to Riverside County Department of Environmental Health (DEH). This list is made available by Riverside County DEH which has been designated as the CUPA for the County. A business is required to establish and submit a Business Plan if the facility handles hazardous material equal to or greater than 55 gallons, 500 pounds or 200 cubic feet at any time during the year.

Government Publication Date: Jan 18, 2022

Riverside County - Medical Waste Facilities: MED WST RIVERSIDE

This list of active and inactive medical waste facilities is maintained by the County of Riverside Department of Environmental Health.

Government Publication Date: Feb 9, 2022

Riverside County - California Accidental Release Prevention Program Sites: RMP RIVERSIDE

This list of Riverside County California Accidental Release Prevention Program sites is maintained by the County of Riverside Department of Environmental Health. AB 3777 was enacted in 1986 to minimize potential emergencies involving acutely hazardous materials by requiring facilities which handle these materials to submit Risk Management Prevention Plans. The Riverside County Department of Environmental Health Hazardous Materials Branch began implementation of this Program County-wide in January 1991. All cities within Riverside County are included in this list.

Government Publication Date: Jan 18, 2022

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Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

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PSR
PHYSICAL SETTING REPORT

Property Information

Order Number:		22040600526p
Date Completed:		April 7, 2022
Project Number:		22-366047.1
Project Property:		Menifee Commerce Center Phase 3 26227 Sherman Road MENIFEE CA 92585
Coordinates:		
	Latitude:	33.73956519
	Longitude:	-117.18157167
	UTM Northing:	3733294.89534 Meters
	UTM Easting:	483181.241061 Meters
	UTM Zone:	UTM Zone 11S
	Elevation:	1,431.48 ft
	Slope Direction:	N/A

Topographic Information....2
Hydrologic Information....4
Geologic Information....7
Soil Information....9
Wells and Additional Sources....22
Summary....23
Detail Report....26
Radon Information....62
Appendix....63
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The ERIS ***Physical Setting Report - PSR*** provides comprehensive information about the physical setting around a site and includes a complete overview of topography and surface topology, in addition to hydrologic, geologic and soil characteristics. The location and detailed attributes of oil and gas wells, water wells, public water systems and radon are also included for review.

The compilation of both physical characteristics of a site and additional attribute data is useful in assessing the impact of migration of contaminants and subsequent impact on soils and groundwater.

Disclaimer

This Report does not provide a full environmental evaluation for the site or adjacent properties. Please see the terms and disclaimer at the end of the Report for greater detail.

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Topographic Information

Current USGS Topo (2015)

0 0.2 0.4 0.8 Miles

N

Quadrangle(s): Perris,CA; Romoland,CA

Source: USGS 7.5 Minute Topographic Map

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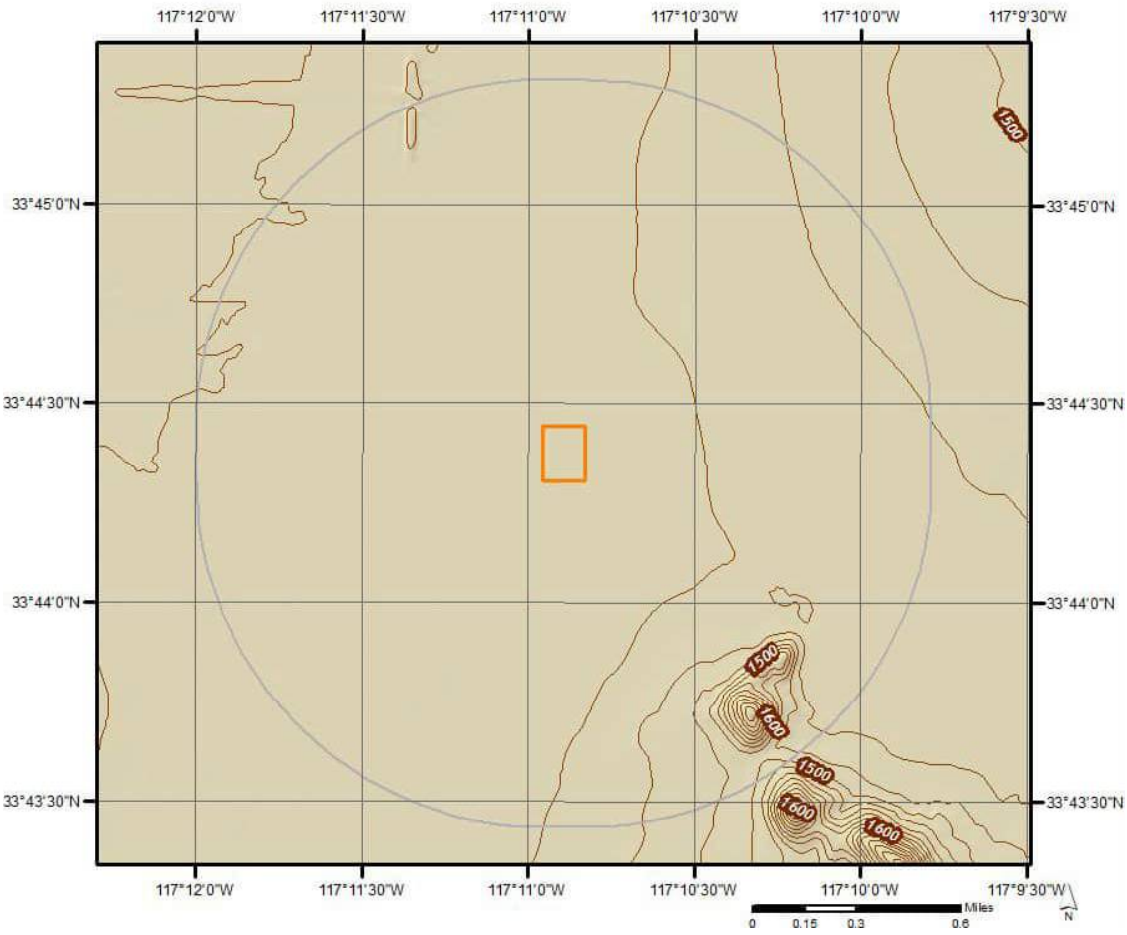
Topographic Information

The previous topographic map(s) are created by seamlessly merging and cutting current USGS topographic data. Below are shaded relief map(s), derived from USGS elevation data to show surrounding topography in further detail.

Topographic information at project property:

Elevation: 1,431.48 ft
Slope Direction: N/A



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Hydrologic Information

Wetland

0 0.075 0.15 0.3 Miles

N

This map shows wetland existence using data from US Fish & Wildlife.
Data coverage is shown to the right. Gray indicates no data available in the area.

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

ERIS

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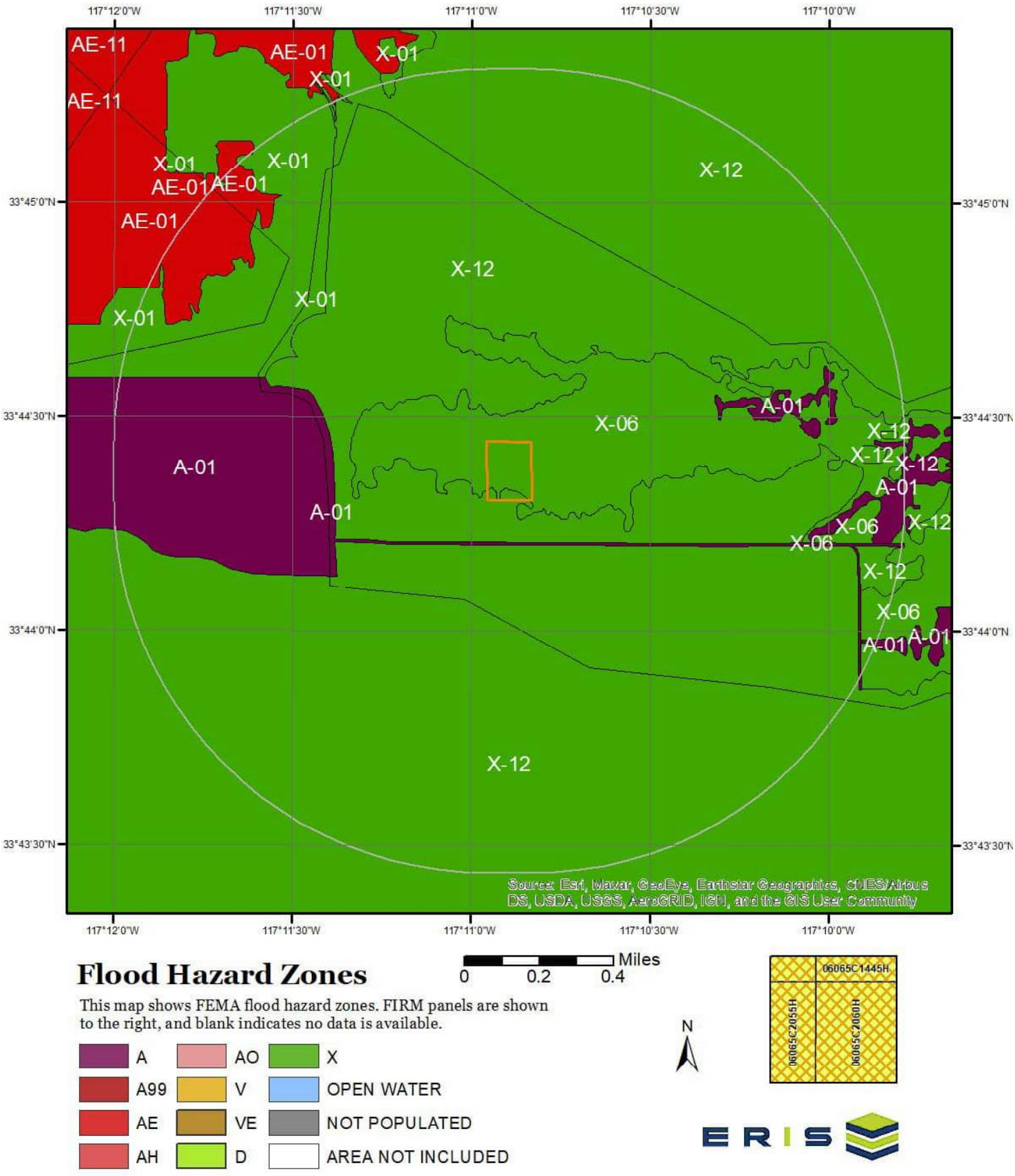
Hydrologic Information



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Hydrologic Information

The Wetland Type map shows wetland existence overlaid on an aerial imagery. The Flood Hazard Zones map shows FEMA flood hazard zones overlaid on an aerial imagery. Relevant FIRM panels and detailed zone information is provided below.
For detailed Zone descriptions please click the link: https://floodadvocate.com/fema-zone-definitions

Available FIRM Panels in area:	06065C1440H(effective:2014-08-18) 06065C1445H(effective:2014-08-18) 06065C2055H(effective:2014-08-18) 06065C2060H(effective:2014-08-18)

Flood Zone A-01

Zone:	A
Zone subtype:	

Flood Zone AE-01

Zone:	AE
Zone subtype:	

Flood Zone X-01

Zone:	X
Zone subtype:	0.2 PCT ANNUAL CHANCE FLOOD HAZARD

Flood Zone X-06

Zone:	X
Zone subtype:	1 PCT DEPTH LESS THAN 1 FOOT

Flood Zone X-12

Zone:	X
Zone subtype:	AREA OF MINIMAL FLOOD HAZARD

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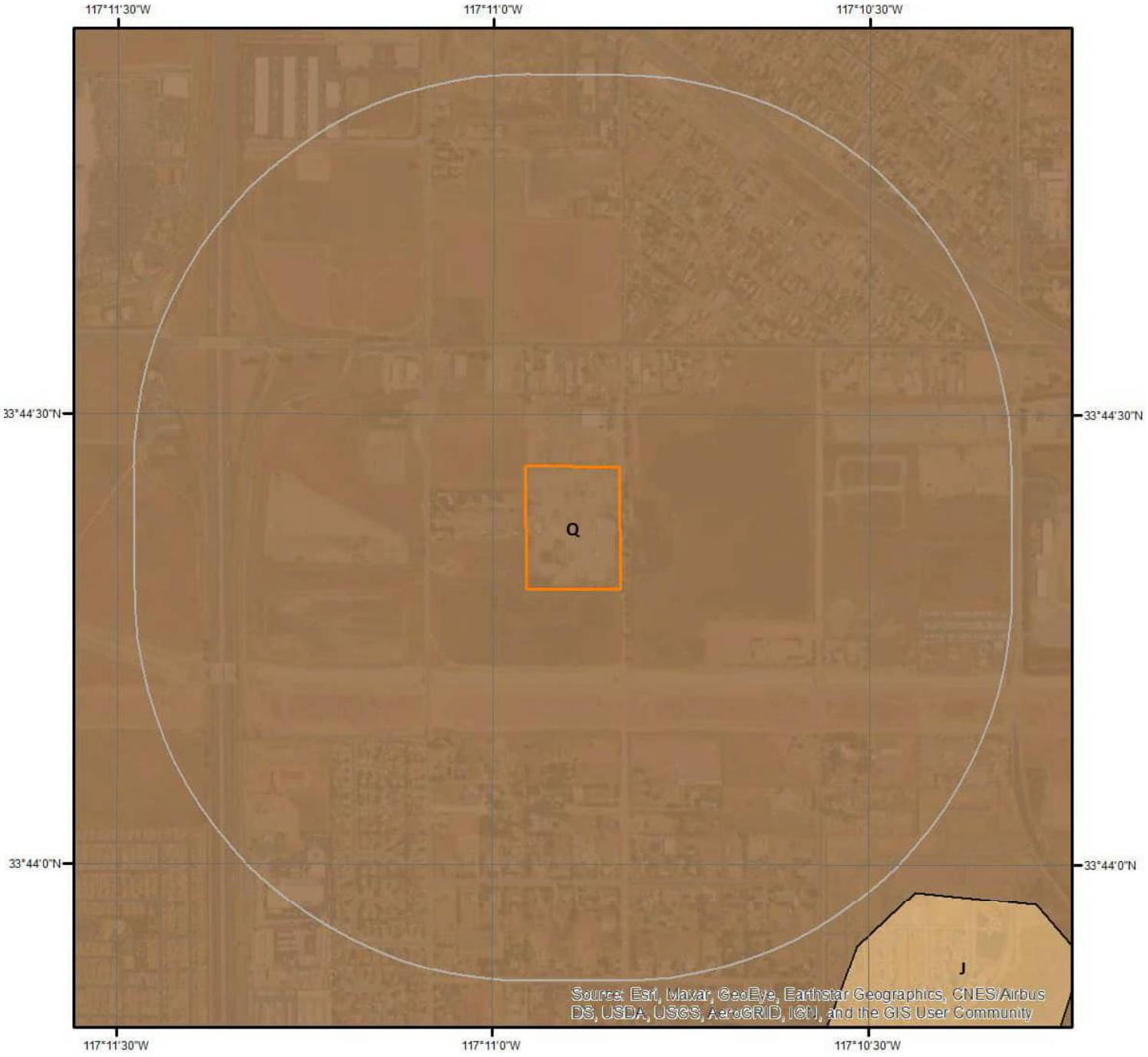
Geologic Information



0 0.2 0.4 Miles

N

Geologic Units

This maps shows geologic units in the area. Please refer to the report for detailed descriptions.

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Geologic Information

The previous page shows USGS geology information. Detailed information about each unit is provided below.

Geologic Unit Q

Unit Name:	Quaternary alluvium and marine deposits
Unit Age:	Pliocene to Holocene
Primary Rock Type:	alluvium
Secondary Rock Type:	terrace
Unit Description:	Alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated. Mostly nonmarine, but includes marine deposits near the coast.

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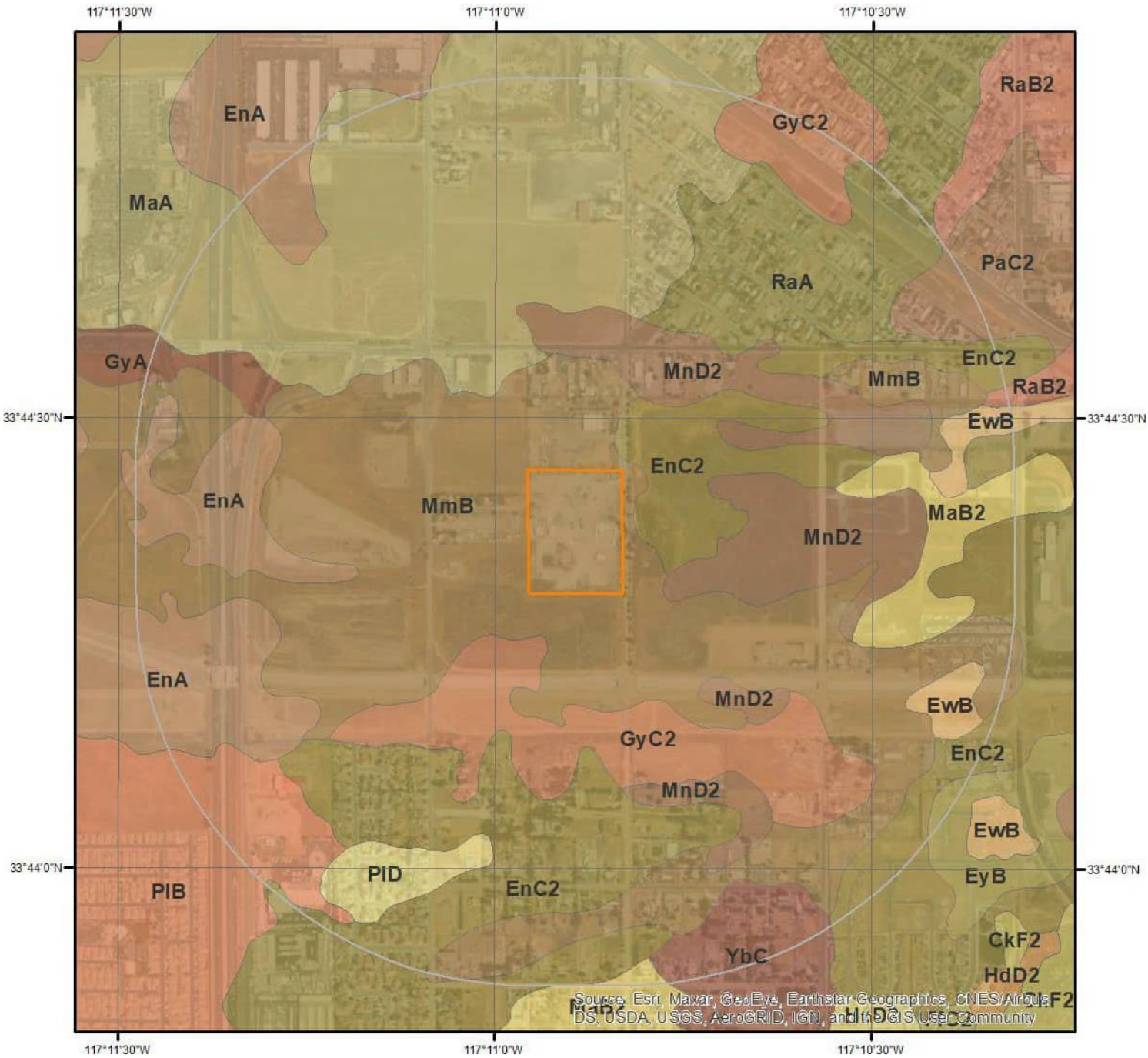
Soil Information



SSURGO Soils

0 0.2 0.4 Miles N

This maps shows SSURGO soil units around the target property. Please refer to the report for detailed soil descriptions.

ERIS

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Soil Information

The previous page shows a soil map using SSURGO data from USDA Natural Resources Conservation Service. Detailed information about each unit is provided below.

Map Unit EnA (14.54%)

Map Unit Name:	Exeter sandy loam, 0 to 2 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Exeter(85%)

horizon H1(0cm to 41cm)	Sandy loam
horizon H2(41cm to 94cm)	Sandy clay loam
horizon H3(94cm to 127cm)	Indurated
horizon H4(127cm to 152cm)	Stratified sandy loam to silt loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: EnA - Exeter sandy loam, 0 to 2 percent slopes

Component: Exeter (85%)
The Exeter component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 3s. Irrigated land capability classification is 3s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent.

Component: Greenfield (4%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Component: Monserate (4%)
Generated brief soil descriptions are created for major soil components. The Monserate soil is a minor component.

Component: Ramona (4%)
Generated brief soil descriptions are created for major soil components. The Ramona soil is a minor component.

Component: Unnamed (3%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Map Unit EnC2 (8.44%)

Map Unit Name:	Exeter sandy loam, 2 to 8 percent slopes, eroded
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Exeter(85%)

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Soil Information

horizon H1(0cm to 41cm)	Sandy loam
horizon H2(41cm to 94cm)	Sandy clay loam
horizon H3(94cm to 127cm)	Indurated
horizon H4(127cm to 152cm)	Stratified sandy loam to silt loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: EnC2 - Exeter sandy loam, 2 to 8 percent slopes, eroded

Component: Exeter (85%)
The Exeter component makes up 85 percent of the map unit. Slopes are 2 to 8 percent. This component is on alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent.

Component: Ramona (5%)
Generated brief soil descriptions are created for major soil components. The Ramona soil is a minor component.

Component: Monserate (5%)
Generated brief soil descriptions are created for major soil components. The Monserate soil is a minor component.

Component: Greenfield (5%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Map Unit EwB (0.29%)

Map Unit Name:	Exeter very fine sandy loam, 0 to 5 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Exeter(85%)

horizon H1(0cm to 41cm)	Very fine sandy loam
horizon H2(41cm to 94cm)	Sandy clay loam
horizon H3(94cm to 127cm)	Indurated
horizon H4(127cm to 152cm)	Stratified sandy loam to silt loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: EwB - Exeter very fine sandy loam, 0 to 5 percent slopes

Component: Exeter (85%)
The Exeter component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent.

Component: Monserate (5%)
Generated brief soil descriptions are created for major soil components. The Monserate soil is a minor component.

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Soil Information

Component: Ramona (5%)
Generated brief soil descriptions are created for major soil components. The Ramona soil is a minor component.

Component: Greenfield (5%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Map Unit EyB (0.55%)

Map Unit Name:	Exeter very fine sandy loam, deep, 0 to 5 percent slope s
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Exeter(85%)

horizon H1(0cm to 41cm)	Fine sandy loam
horizon H2(41cm to 94cm)	Sandy clay loam
horizon H3(94cm to 127cm)	Indurated
horizon H4(127cm to 152cm)	Stratified sandy loam to silt loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: EyB - Exeter very fine sandy loam, deep, 0 to 5 percent slopes

Component: Exeter (85%)
The Exeter component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, duripan, is 35 to 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent.

Component: Monserate (5%)
Generated brief soil descriptions are created for major soil components. The Monserate soil is a minor component.

Component: Greenfield (5%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Component: Ramona (5%)
Generated brief soil descriptions are created for major soil components. The Ramona soil is a minor component.

Map Unit GyA (0.68%)

Map Unit Name:	Greenfield sandy loam, 0 to 2 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	A - Soils in this group have low runoff potential when thoroughly wet. Water is transmitted freely through the soil.

Major components are printed below

Greenfield(85%)

horizon H1(0cm to 66cm)	Sandy loam
horizon H2(66cm to 109cm)	Fine sandy loam
horizon H3(109cm to 152cm)	Loam

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horizon H4(152cm to 183cm)	Stratified loamy sand to sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: GyA - Greenfield sandy loam, 0 to 2 percent slopes

Component: Greenfield (85%)
The Greenfield component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on alluvial fans, terraces. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 3c. Irrigated land capability classification is 1 This soil does not meet hydric criteria.

Component: Hanford (10%)
Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Component: Pachappa (2%)
Generated brief soil descriptions are created for major soil components. The Pachappa soil is a minor component.

Component: Arlington (2%)
Generated brief soil descriptions are created for major soil components. The Arlington soil is a minor component.

Component: Unnamed (1%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Map Unit GyC2 (6.13%)

Map Unit Name:	Greenfield sandy loam, 2 to 8 percent slopes, eroded
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	A - Soils in this group have low runoff potential when thoroughly wet. Water is transmitted freely through the soil.

Major components are printed below

Greenfield(85%)

horizon H1(0cm to 66cm)	Sandy loam
horizon H2(66cm to 109cm)	Fine sandy loam
horizon H3(109cm to 152cm)	Loam
horizon H4(152cm to 183cm)	Stratified loamy sand to sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded

Component: Greenfield (85%)
The Greenfield component makes up 85 percent of the map unit. Slopes are 2 to 8 percent. This component is on alluvial fans, terraces. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Pachappa (3%)
Generated brief soil descriptions are created for major soil components. The Pachappa soil is a minor component.

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Soil Information

Component: Unnamed (3%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Component: Hanford (3%)
Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Component: Ramona (3%)
Generated brief soil descriptions are created for major soil components. The Ramona soil is a minor component.

Component: Arlington (3%)
Generated brief soil descriptions are created for major soil components. The Arlington soil is a minor component.

Map Unit MaA (23.83%)

Map Unit Name:	Madera fine sandy loam, 0 to 2 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Madera(85%)

horizon H1(0cm to 48cm)	Fine sandy loam
horizon H2(48cm to 66cm)	Clay
horizon H3(66cm to 94cm)	Indurated
horizon H4(94cm to 157cm)	Stratified coarse sandy loam to clay loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: MaA - Madera fine sandy loam, 0 to 2 percent slopes

Component: Madera (85%)
The Madera component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on dissected alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD061CA Claypan (1975) ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 3s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Unnamed (3%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Component: Monserate (3%)
Generated brief soil descriptions are created for major soil components. The Monserate soil is a minor component.

Component: Chino (3%)
Generated brief soil descriptions are created for major soil components. The Chino soil is a minor component.

Component: Exeter (3%)
Generated brief soil descriptions are created for major soil components. The Exeter soil is a minor component.

Component: Willows (3%)
Generated brief soil descriptions are created for major soil components. The Willows soil is a minor component.

Map Unit MaB2 (1.43%)

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Soil Information

Map Unit Name:	Madera fine sandy loam, 2 to 5 percent slopes, eroded
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Madera(85%)

horizon H1(0cm to 30cm)	Fine sandy loam
horizon H2(30cm to 53cm)	Clay
horizon H3(53cm to 81cm)	Indurated
horizon H4(81cm to 152cm)	Stratified coarse sandy loam to clay loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: MaB2 - Madera fine sandy loam, 2 to 5 percent slopes, eroded

Component: Madera (85%)
The Madera component makes up 85 percent of the map unit. Slopes are 2 to 5 percent. This component is on dissected alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD061CA Claypan (1975) ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Exeter (5%)
Generated brief soil descriptions are created for major soil components. The Exeter soil is a minor component.

Component: Chino (5%)
Generated brief soil descriptions are created for major soil components. The Chino soil is a minor component.

Component: Monserate (4%)
Generated brief soil descriptions are created for major soil components. The Monserate soil is a minor component.

Component: Unnamed (1%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Map Unit MmB (6.8%)

Map Unit Name:	Monserate sandy loam, 0 to 5 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Monserate(85%)

horizon H1(0cm to 25cm)	Sandy loam
horizon H2(25cm to 71cm)	Sandy clay loam
horizon H3(71cm to 114cm)	Indurated
horizon H4(114cm to 145cm)	Cemented
horizon H5(145cm to 178cm)	Coarse sandy loam
horizon H5(145cm to 178cm)	Loamy coarse sand

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Soil Information

Component Description:

Minor map unit components are excluded from this report.

Map Unit: MmB - Monserate sandy loam, 0 to 5 percent slopes

Component: Monserate (85%)
The Monserate component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, duripan, is 20 to 39 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Greenfield (5%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Component: Hanford (5%)
Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Component: Tujunga (5%)
Generated brief soil descriptions are created for major soil components. The Tujunga soil is a minor component.

Map Unit MnD2 (1.68%)

Map Unit Name:	Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Monserate(85%)

horizon H1(0cm to 25cm)	Sandy loam
horizon H2(25cm to 46cm)	Sandy clay loam
horizon H3(46cm to 114cm)	Indurated
horizon H4(114cm to 145cm)	Cemented
horizon H5(145cm to 178cm)	Loamy coarse sand

Component Description:

Minor map unit components are excluded from this report.

Map Unit: MnD2 - Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded

Component: Monserate (85%)
The Monserate component makes up 85 percent of the map unit. Slopes are 5 to 15 percent. This component is on alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD060CA Shallow Loamy (1975) ecological site. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria.

Component: Hanford (5%)
Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Component: Tujunga (5%)
Generated brief soil descriptions are created for major soil components. The Tujunga soil is a minor component.

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Soil Information

Component: Greenfield (5%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Map Unit PaC2 (3.35%)

Map Unit Name:	Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

Pachappa(85%)

horizon H1(0cm to 51cm)	Fine sandy loam
horizon H2(51cm to 102cm)	Loam
horizon H3(102cm to 160cm)	Fine sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: PaC2 - Pachappa fine sandy loam, 2 to 8 percent slopes, eroded

Component: Pachappa (85%)
The Pachappa component makes up 85 percent of the map unit. Slopes are 2 to 8 percent. This component is on alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Hanford (5%)
Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Component: San Emigdio (5%)
Generated brief soil descriptions are created for major soil components. The San Emigdio soil is a minor component.

Component: Greenfield (5%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Map Unit PlB (14.13%)

Map Unit Name:	Placentia fine sandy loam, 0 to 5 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Placentia(85%)

horizon H1(0cm to 46cm)	Fine sandy loam
horizon H2(46cm to 99cm)	Clay
horizon H3(99cm to 145cm)	Clay loam
horizon H4(145cm to 152cm)	Gravelly sandy loam

Component Description:

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Soil Information

Minor map unit components are excluded from this report.

Map Unit: PlB - Placentia fine sandy loam, 0 to 5 percent slopes

Component: Placentia (85%)
The Placentia component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on terraces, alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD061CA Claypan (1975) ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent. The soil has a slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 32 within 30 inches of the soil surface.

Component: Hanford (5%)
Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Component: Greenfield (5%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Component: Ramona (4%)
Generated brief soil descriptions are created for major soil components. The Ramona soil is a minor component.

Component: Unnamed (1%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Map Unit PlD (0.26%)

Map Unit Name:	Placentia fine sandy loam, 5 to 15 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Placentia(85%)

horizon H1(0cm to 46cm)	Fine sandy loam
horizon H2(46cm to 99cm)	Clay
horizon H3(99cm to 145cm)	Clay loam
horizon H4(145cm to 152cm)	Gravelly sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: PlD - Placentia fine sandy loam, 5 to 15 percent slopes

Component: Placentia (85%)
The Placentia component makes up 85 percent of the map unit. Slopes are 5 to 15 percent. This component is on terraces, alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD061CA Claypan (1975) ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent. The soil has a slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 32 within 30 inches of the soil surface.

Component: Hanford (5%)

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Soil Information

Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Component: Greenfield (5%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Component: Ramona (4%)
Generated brief soil descriptions are created for major soil components. The Ramona soil is a minor component.

Component: Unnamed (1%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Map Unit RaA (2.11%)

Map Unit Name:	Ramona sandy loam, 0 to 2 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Ramona(85%)

horizon H1(0cm to 36cm)	Sandy loam
horizon H2(36cm to 58cm)	Fine sandy loam
horizon H3(58cm to 173cm)	Sandy clay loam
horizon H4(173cm to 188cm)	Gravelly sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: RaA - Ramona sandy loam, 0 to 2 percent slopes, MLRA 19

Component: Ramona (85%)
The Ramona component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on alluvial plains, terraces, alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 4s. Irrigated land capability classification is 2s. This soil does not meet hydric criteria.

Component: Greenfield (6%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Component: Hanford (4%)
Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Component: Tujunga (4%)
Generated brief soil descriptions are created for major soil components. The Tujunga soil is a minor component.

Component: Placentia (1%)
Generated brief soil descriptions are created for major soil components. The Placentia soil is a minor component.

Map Unit RaB2 (5.23%)

Map Unit Name:	Ramona sandy loam, 2 to 5 percent slopes, eroded
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained

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Soil Information

Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Ramona(85%)

horizon H1(0cm to 36cm)	Sandy loam
horizon H2(36cm to 58cm)	Fine sandy loam
horizon H3(58cm to 173cm)	Sandy clay loam
horizon H4(173cm to 188cm)	Gravelly sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: RaB2 - Ramona sandy loam, 2 to 5 percent slopes, eroded

Component: Ramona (85%)
The Ramona component makes up 85 percent of the map unit. Slopes are 2 to 5 percent. This component is on alluvial fans, terraces. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent.

Component: Greenfield (4%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Component: Hanford (4%)
Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Component: Arlington (4%)
Generated brief soil descriptions are created for major soil components. The Arlington soil is a minor component.

Component: Tujunga (3%)
Generated brief soil descriptions are created for major soil components. The Tujunga soil is a minor component.

Map Unit YbC (10.54%)

Map Unit Name:	Yokohl loam, 2 to 8 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Yokohl(85%)

horizon H1(0cm to 25cm)	Loam
horizon H2(25cm to 66cm)	Clay loam
horizon H3(66cm to 76cm)	Indurated
horizon H4(76cm to 152cm)	Stratified sandy loam to gravelly loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: YbC - Yokohl loam, 2 to 8 percent slopes

Component: Yokohl (85%)
The Yokohl component makes up 85 percent of the map unit. Slopes are 2 to 8 percent. This component is on alluvial fans. The parent material consists of alluvium derived from igneous rock. Depth to a root restrictive layer, duripan, is 20 to 39 inches. The

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natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD061CA Claypan (1975) ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Wyman (5%)
Generated brief soil descriptions are created for major soil components. The Wyman soil is a minor component.

Component: Porterville (5%)
Generated brief soil descriptions are created for major soil components. The Porterville soil is a minor component.

Component: Buren (4%)
Generated brief soil descriptions are created for major soil components. The Buren soil is a minor component.

Component: Unnamed (1%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

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Wells and Additional Sources

Wells & Additional Sources

N

0 0.15 0.3 0.6 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

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Wells and Additional Sources Summary

Federal Sources

Public Water Systems Violations and Enforcement Data

Map Key	ID	Distance (ft)	Direction
	No records found		

Safe Drinking Water Information System (SDWIS)

Map Key	ID	Distance (ft)	Direction
	No records found		

USGS National Water Information System

Map Key	Monitoring Loc Identifier	Distance (ft)	Direction
3	USGS-334404117105801	1476.70	SSW
4	USGS-334413117102901	1590.52	ESE
5	USGS-334447117110301	2197.97	NNW
8	USGS-334356117103101	2612.01	SSE
9	USGS-334349117105801	2974.95	S
11	USGS-334347117110101	3211.06	SSW
13	USGS-334458117111001	3447.98	NNW
16	USGS-334455117101401	4000.91	NE
18	USGS-334502117112201	4282.16	NNW
22	USGS-334400117110001	4798.60	WSW
24	USGS-334357117114901	5097.25	WSW

State Sources

Oil and Gas Wells

Map Key	ID	Distance (ft)	Direction
	No records found		

Periodic Groundwater Level Measurement Locations

Map Key	Site Code	Distance (ft)	Direction
2	337370N1171765W001	1189.15	SE
6	337464N1171859W001	2309.80	NNW
7	337322N1171770W001	2503.69	SSE
10	337303N1171845W001	2987.73	SSW
12	337297N1171854W001	3258.10	SSW
15	337495N1171879W001	3590.35	NNW
17	337506N1171899W001	4238.68	NNW
19	337506N1171912W001	4407.10	NW
23	337334N1171648W001	5059.09	ESE
25	337327N1171977W001	5122.11	WSW

Well Completion Reports

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Wells and Additional Sources Summary

Map Key	WCR No	Distance (ft)	Direction
1	WCR1997-010417	973.55	SSE
1	WCR1991-018543	973.55	SSE
1	WCR1998-009288	973.55	SSE
1	WCR2001-014183	973.55	SSE
1	WCR1994-012063	973.55	SSE
1	WCR1998-009329	973.55	SSE
1	WCR1994-012062	973.55	SSE
1	WCR1952-001347	973.55	SSE
1	WCR1952-001782	973.55	SSE
1	WCR2003-011975	973.55	SSE
1	WCR2004-012513	973.55	SSE
1	WCR1991-018544	973.55	SSE
1	WCR1988-015802	973.55	SSE
1	WCR0113990	973.55	SSE
1	WCR0075574	973.55	SSE
1	WCR1993-013326	973.55	SSE
1	WCR0030046	973.55	SSE
1	WCR0058845	973.55	SSE
1	WCR2005-016814	973.55	SSE
1	WCR1998-009513	973.55	SSE
1	WCR1996-010873	973.55	SSE
1	WCR2001-014290	973.55	SSE
1	WCR1993-013207	973.55	SSE
1	WCR2004-012514	973.55	SSE
1	WCR1991-018545	973.55	SSE
1	WCR2007-010211	973.55	SSE
1	WCR2003-013955	973.55	SSE
1	WCR1996-009097	973.55	SSE
1	WCR2000-011681	973.55	SSE
1	WCR2004-011465	973.55	SSE
1	WCR2002-014807	973.55	SSE
1	WCR2001-014182	973.55	SSE
1	WCR1998-009327	973.55	SSE
1	WCR1994-012068	973.55	SSE
1	WCR1997-011298	973.55	SSE
14	WCR2001-011815	3508.13	N
14	WCR1949-000591	3508.13	N
14	WCR1948-001223	3508.13	N
14	WCR2011-008196	3508.13	N
14	WCR2001-011814	3508.13	N
14	WCR2001-011816	3508.13	N
14	WCR1982-006453	3508.13	N
14	WCR1986-010535	3508.13	N
14	WCR1948-001222	3508.13	N
14	WCR1931-000314	3508.13	N
14	WCR0064533	3508.13	N
14	WCR2001-010826	3508.13	N
14	WCR0161986	3508.13	N
14	WCR2009-009553	3508.13	N
14	WCR2002-013387	3508.13	N
14	WCR1998-009834	3508.13	N
14	WCR1948-001054	3508.13	N
14	WCR2011-008195	3508.13	N
14	WCR1776-008978	3508.13	N
14	WCR1948-001431	3508.13	N
14	WCR1951-002197	3508.13	N
14	WCR1948-001260	3508.13	N
14	WCR2001-010764	3508.13	N
14	WCR1776-011495	3508.13	N
14	WCR0294636	3508.13	N
14	WCR1776-011318	3508.13	N
14	WCR1950-002407	3508.13	N
14	WCR1949-000716	3508.13	N
14	WCR1776-008977	3508.13	N

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Wells and Additional Sources Summary

14	WCR1950-002105	3508.13	N
14	WCR2009-009552	3508.13	N
14	WCR1975-003070	3508.13	N
14	WCR1949-000592	3508.13	N
14	WCR1952-001781	3508.13	N
14	WCR2011-008197	3508.13	N
14	WCR1953-002174	3508.13	N
14	WCR2009-008827	3508.13	N
14	WCR2006-012430	3508.13	N
14	WCR1953-001820	3508.13	N
20	WCR2001-014313	4412.99	WSW
21	WCR0161688	4672.16	WSW
21	WCR2001-010828	4672.16	WSW
21	WCR2001-011824	4672.16	WSW
21	WCR1776-010975	4672.16	WSW
21	WCR1776-010974	4672.16	WSW
21	WCR2001-010829	4672.16	WSW
21	WCR1776-008988	4672.16	WSW
21	WCR2013-009039	4672.16	WSW
21	WCR1776-008989	4672.16	WSW
21	WCR1776-004439	4672.16	WSW
21	WCR2001-011823	4672.16	WSW
21	WCR1987-012673	4672.16	WSW
21	WCR2001-013918	4672.16	WSW

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Wells and Additional Sources Detail Report

USGS National Water Information System

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.28	1,476.70	1,431.48	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	150	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	150	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	RIVERSIDE
Construction Date:	19941015	Latitude:	33.7344649
Source Map Scale:	24000	Longitude:	-117.1836449
Monitoring Loc Name:	005S003W15L001S		
Monitoring Loc Identifier:	USGS-334404117105801		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070202		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	5		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	1429		
Vertical Measure Unit:	feet		
Vertical Accuracy:	5		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
4	ESE	0.30	1,590.52	1,438.48	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	220	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	220	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	RIVERSIDE

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Wells and Additional Sources Detail Report

Construction Date:		Latitude:	33.7369648
Source Map Scale:	24000	Longitude:	-117.175589
Monitoring Loc Name:	005S003W15H001S		
Monitoring Loc Identifier:	USGS-334413117102901		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070202		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	5		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	1435		
Vertical Measure Unit:	feet		
Vertical Accuracy:	5		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	NNW	0.42	2,197.97	1,428.48	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:		Aquifer Type:	
Well Depth Unit:		Country Code:	US
Well Hole Depth:		Provider Name:	NWIS
W Hole Depth Unit:		County:	RIVERSIDE
Construction Date:		Latitude:	33.746409
Source Map Scale:	24000	Longitude:	-117.185034
Monitoring Loc Name:	005S003W10N001S		
Monitoring Loc Identifier:	USGS-334447117110301		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070202		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	5		
Horizontal Accuracy Unit:	seconds		

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Horizontal Collection Mthd:	Interpolated from MAP.
Horiz Coord Refer System:	NAD83
Vertical Measure:	1425
Vertical Measure Unit:	feet
Vertical Accuracy:	5
Vertical Accuracy Unit:	feet
Vertical Collection Mthd:	Interpolated from topographic map.
Vert Coord Refer System:	NGVD29

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
8	SSE	0.49	2,612.01	1,441.48	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	380	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	380	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	RIVERSIDE
Construction Date:	19910404	Latitude:	33.7322428
Source Map Scale:	24000	Longitude:	-117.1761446
Monitoring Loc Name:	005S003W15Q001S		
Monitoring Loc Identifier:	USGS-334356117103101		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070202		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	5		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	1439		
Vertical Measure Unit:	feet		
Vertical Accuracy:	5		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	S	0.56	2,974.95	1,432.48	FED USGS

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Wells and Additional Sources Detail Report

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	160	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	160	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	RIVERSIDE
Construction Date:	19941001	Latitude:	33.7302983
Source Map Scale:	24000	Longitude:	-117.1836449
Monitoring Loc Name:	005S003W15P002S		
Monitoring Loc Identifier:	USGS-334349117105801		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070202		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	5		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	1429		
Vertical Measure Unit:	feet		
Vertical Accuracy:	5		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
11	SSW	0.61	3,211.06	1,431.48	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	185	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	185	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	RIVERSIDE
Construction Date:	19910709	Latitude:	33.7297428
Source Map Scale:	24000	Longitude:	-117.1844783
Monitoring Loc Name:	005S003W15P001S		
Monitoring Loc Identifier:	USGS-334347117110101		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070202		

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Drainage Area:	
Drainage Area Unit:	
Contrib Drainage Area:	
Contrib Drainage Area Unit:	
Horizontal Accuracy:	5
Horizontal Accuracy Unit:	seconds
Horizontal Collection Mthd:	Interpolated from MAP.
Horiz Coord Refer System:	NAD83
Vertical Measure:	1428
Vertical Measure Unit:	feet
Vertical Accuracy:	5
Vertical Accuracy Unit:	feet
Vertical Collection Mthd:	Interpolated from topographic map.
Vert Coord Refer System:	NGVD29

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
13	NNW	0.65	3,447.98	1,426.59	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	333.7	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:		Provider Name:	NWIS
W Hole Depth Unit:		County:	RIVERSIDE
Construction Date:		Latitude:	33.7494644
Source Map Scale:	24000	Longitude:	-117.1869785
Monitoring Loc Name:	005S003W10M002S		
Monitoring Loc Identifier:	USGS-334458117111001		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070202		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	5		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	1422		
Vertical Measure Unit:	feet		
Vertical Accuracy:	10		
Vertical Accuracy Unit:	feet		

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Vertical Collection Mthd:	Interpolated from topographic map.
Vert Coord Refer System:	NGVD29

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
16	NE	0.76	4,000.91	1,453.51	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	787	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	787	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	RIVERSIDE
Construction Date:		Latitude:	33.7486312
Source Map Scale:	24000	Longitude:	-117.1714222
Monitoring Loc Name:	005S003W11M002S		
Monitoring Loc Identifier:	USGS-334455117101401		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070202		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	1		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	1451		
Vertical Measure Unit:	feet		
Vertical Accuracy:	10		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
18	NNW	0.81	4,282.16	1,422.51	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	250.6	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	260	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	RIVERSIDE

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Wells and Additional Sources Detail Report

Construction Date:	19930920	Latitude:	33.7505755
Source Map Scale:	24000	Longitude:	-117.190312
Monitoring Loc Name:	005S003W09H002S		
Monitoring Loc Identifier:	USGS-334502117112201		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070202		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	5		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	1420		
Vertical Measure Unit:	feet		
Vertical Accuracy:	5		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
22	WSW	0.91	4,798.60	1,424.48	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	410	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	460	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	RIVERSIDE
Construction Date:	20010514	Latitude:	33.7355
Source Map Scale:	24000	Longitude:	-117.198
Monitoring Loc Name:	005S003W16K001S		
Monitoring Loc Identifier:	USGS-334400117110001		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070202		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	.5		
Horizontal Accuracy Unit:	seconds		

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Horizontal Collection Mthd:	Mapping grade GPS unit (handheld accuracy range 12 to 40 ft)
Horiz Coord Refer System:	NAD83
Vertical Measure:	1424
Vertical Measure Unit:	feet
Vertical Accuracy:	15
Vertical Accuracy Unit:	feet
Vertical Collection Mthd:	Interpolated from Digital Elevation Model
Vert Coord Refer System:	NGVD29

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
24	WSW	0.97	5,097.25	1,425.48	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:		Aquifer Type:	
Well Depth Unit:		Country Code:	US
Well Hole Depth:	568	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	RIVERSIDE
Construction Date:	1971	Latitude:	33.7325205
Source Map Scale:	24000	Longitude:	-117.1978123
Monitoring Loc Name:	005S003W16P002S		
Monitoring Loc Identifier:	USGS-334357117114901		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070202		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	5		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	1425		
Vertical Measure Unit:	feet		
Vertical Accuracy:	5		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Periodic Groundwater Level Measurement Locations

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
2	SE	0.23	1,189.15	1,436.48	MONITOR WELLS

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Wells and Additional Sources Detail Report

Site Code:	337370N1171765W001	Basin ID:	
State Well No:	05S03W15H001S	Basin Code:	8-005
Station ID:	28641	Basin Name:	San Jacinto
WCR No:		Basin Region Code:	8
Well Depth:		Basin Region Desc:	North Lahontan
Well Use:	Unknown	Basin Region Actv:	Y
Well Type:	Unknown	Basin Region Order:	8
Well Name:		County Name:	Riverside
Latitude:	33.737	WLM Method:	Unknown
Longitude:	-117.177	WLM Accuracy:	Unknown

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	NNW	0.44	2,309.80	1,427.48	MONITOR WELLS

Site Code:	337464N1171859W001	Basin ID:	
State Well No:	05S03W10N001S	Basin Code:	8-005
Station ID:	6310	Basin Name:	San Jacinto
WCR No:		Basin Region Code:	8
Well Depth:		Basin Region Desc:	North Lahontan
Well Use:	Unknown	Basin Region Actv:	Y
Well Type:	Unknown	Basin Region Order:	8
Well Name:		County Name:	Riverside
Latitude:	33.7464	WLM Method:	Unknown
Longitude:	-117.186	WLM Accuracy:	Unknown

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
7	SSE	0.47	2,503.69	1,440.85	MONITOR WELLS

Site Code:	337322N1171770W001	Basin ID:	
State Well No:	05S03W15Q001S	Basin Code:	8-005
Station ID:	28642	Basin Name:	San Jacinto
WCR No:		Basin Region Code:	8
Well Depth:		Basin Region Desc:	North Lahontan
Well Use:	Unknown	Basin Region Actv:	Y
Well Type:	Unknown	Basin Region Order:	8
Well Name:		County Name:	Riverside
Latitude:	33.7322	WLM Method:	Unknown
Longitude:	-117.177	WLM Accuracy:	Unknown

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
10	SSW	0.57	2,987.73	1,431.48	MONITOR WELLS

Site Code:	337303N1171845W001	Basin ID:	
State Well No:	05S03W15P002S	Basin Code:	8-005

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Wells and Additional Sources Detail Report

Station ID:	6315	Basin Name:	San Jacinto
WCR No:		Basin Region Code:	8
Well Depth:		Basin Region Desc:	North Lahontan
Well Use:	Unknown	Basin Region Actv:	Y
Well Type:	Unknown	Basin Region Order:	8
Well Name:		County Name:	Riverside
Latitude:	33.7303	WLM Method:	Unknown
Longitude:	-117.184	WLM Accuracy:	Unknown

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
12	SSW	0.62	3,258.10	1,431.48	MONITOR WELLS

Site Code:	337297N1171854W001	Basin ID:	
State Well No:	05S03W15P001S	Basin Code:	8-005
Station ID:	6314	Basin Name:	San Jacinto
WCR No:		Basin Region Code:	8
Well Depth:		Basin Region Desc:	North Lahontan
Well Use:	Unknown	Basin Region Actv:	Y
Well Type:	Unknown	Basin Region Order:	8
Well Name:		County Name:	Riverside
Latitude:	33.7297	WLM Method:	Unknown
Longitude:	-117.185	WLM Accuracy:	Unknown

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
15	NNW	0.68	3,590.35	1,424.32	MONITOR WELLS

Site Code:	337495N1171879W001	Basin ID:	
State Well No:	05S03W10M002S	Basin Code:	8-005
Station ID:	6309	Basin Name:	San Jacinto
WCR No:		Basin Region Code:	8
Well Depth:		Basin Region Desc:	North Lahontan
Well Use:	Unknown	Basin Region Actv:	Y
Well Type:	Unknown	Basin Region Order:	8
Well Name:		County Name:	Riverside
Latitude:	33.7495	WLM Method:	Unknown
Longitude:	-117.188	WLM Accuracy:	Unknown

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
17	NNW	0.80	4,238.68	1,422.45	MONITOR WELLS

Site Code:	337506N1171899W001	Basin ID:	
State Well No:		Basin Code:	8-005
Station ID:	48337	Basin Name:	San Jacinto
WCR No:		Basin Region Code:	8
Well Depth:	249	Basin Region Desc:	North Lahontan

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Wells and Additional Sources Detail Report

Well Use:	Observation	Basin Region Actv:	Y
Well Type:	Single Well	Basin Region Order:	8
Well Name:	EMWD12744	County Name:	Riverside
Latitude:	33.7506	WLM Method:	Digital Elevation Model
Longitude:	-117.19	WLM Accuracy:	5 ft.

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
19	NW	0.83	4,407.10	1,421.71	MONITOR WELLS

Site Code:	337506N1171912W001	Basin ID:	
State Well No:	05S03W09H002S	Basin Code:	8-005
Station ID:	6307	Basin Name:	San Jacinto
WCR No:		Basin Region Code:	8
Well Depth:		Basin Region Desc:	North Lahontan
Well Use:	Unknown	Basin Region Actv:	Y
Well Type:	Unknown	Basin Region Order:	8
Well Name:		County Name:	Riverside
Latitude:	33.7506	WLM Method:	Unknown
Longitude:	-117.191	WLM Accuracy:	Unknown

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
23	ESE	0.96	5,059.09	1,444.51	MONITOR WELLS

Site Code:	337334N1171648W001	Basin ID:	
State Well No:	05S03W14L001S	Basin Code:	8-005
Station ID:	6313	Basin Name:	San Jacinto
WCR No:		Basin Region Code:	8
Well Depth:		Basin Region Desc:	North Lahontan
Well Use:	Unknown	Basin Region Actv:	Y
Well Type:	Unknown	Basin Region Order:	8
Well Name:		County Name:	Riverside
Latitude:	33.7334	WLM Method:	Unknown
Longitude:	-117.165	WLM Accuracy:	Unknown

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	WSW	0.97	5,122.11	1,425.48	MONITOR WELLS

Site Code:	337327N1171977W001	Basin ID:	
State Well No:		Basin Code:	8-005
Station ID:	48340	Basin Name:	San Jacinto
WCR No:		Basin Region Code:	8
Well Depth:		Basin Region Desc:	North Lahontan
Well Use:	Observation	Basin Region Actv:	Y
Well Type:	Single Well	Basin Region Order:	8
Well Name:	EMWD12765	County Name:	Riverside

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Wells and Additional Sources Detail Report

Latitude:	33.7327	WLM Method:	Digital Elevation Model
Longitude:	-117.198	WLM Accuracy:	5 ft.

Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1997-010417	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	DAWSON RD		
Location(OSWCR):	DAWSON RD		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1991-018543	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	AIRSTREAM		
Location(OSWCR):	AIRSTREAM		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1998-009288	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	26395 DAWSON RD		
Location(OSWCR):	26395 DAWSON RD		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

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Wells and Additional Sources Detail Report

WCR No:	WCR2001-014183	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	26658 Dawson Rd		
Location(OSWCR):	26658 Dawson Rd		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1994-012063	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	27275 HELENE WAY		
Location(OSWCR):	27275 HELENE WAY		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1998-009329	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	27125 Almaden Lane		
Location(OSWCR):	27125 Almaden Lane		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1994-012062	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	26805 SHERMAN RD		
Location(OSWCR):	26805 SHERMAN RD		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water		

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Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1952-001347	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1952-001782	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	WEND, TRUMBLO FARMS		
Location(OSWCR):	WEND, TRUMBLO FARMS		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR2003-011975	City(OSWCR):	Perris
City:	Perris	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	Ethanac Rd		
Location(OSWCR):	Ethanac Rd		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR2004-012513	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside

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Wells and Additional Sources Detail Report

County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	26395 Dawson Rd, McLaughlin Rd, Lot 2		
Location(OSWCR):	26395 Dawson Rd, McLaughlin Rd, Lot 2		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1991-018544	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	AIRSTREEM WAY		
Location(OSWCR):	AIRSTREEM WAY		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1988-015802	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	ETHANAC RD, DAWSON RD		
Location(OSWCR):	ETHANAC RD, DAWSON RD		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR0113990	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

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Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR0075574	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1993-013326	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	ETHANAC, DAWSON		
Location(OSWCR):	ETHANAC, DAWSON		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR0030046	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR0058845	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033

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Wells and Additional Sources Detail Report

Decimal Longitude: -117.18033
Location: None
Location(OSWCR): None
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No: WCR2005-016814
City: Romoland
County: Riverside
Decimal Latitude: 33.73575
Decimal Longitude: -117.18033
Location: 27375 Ethanac Road
Location(OSWCR): 27375 Ethanac Road
City(OSWCR): Romoland
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.73575
Decim Long(OSWCR): -117.18033
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No: WCR1998-009513
City: Sun City
County: Riverside
Decimal Latitude: 33.73575
Decimal Longitude: -117.18033
Location: DAWSON RD/LOT 87 TRUMBLE FARMS
Location(OSWCR): DAWSON RD/LOT 87 TRUMBLE FARMS
City(OSWCR): Sun City
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.73575
Decim Long(OSWCR): -117.18033
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No: WCR1996-010873
City: Sun City
County: Riverside
Decimal Latitude: 33.73575
Decimal Longitude: -117.18033
Location: 27425 CATALUNA CIRCLE
Location(OSWCR): 27425 CATALUNA CIRCLE
City(OSWCR): Sun City
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.73575
Decim Long(OSWCR): -117.18033
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

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Wells and Additional Sources Detail Report

WCR No:	WCR2001-014290	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	26200 Trumble Road		
Location(OSWCR):	26200 Trumble Road		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1993-013207	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	HWY 215, ETHANAC, DAWSON RD		
Location(OSWCR):	HWY 215, ETHANAC, DAWSON RD		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR2004-012514	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	26450 Dawson Rd, McLaughlin Rd, Lot 4		
Location(OSWCR):	26450 Dawson Rd, McLaughlin Rd, Lot 4		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1991-018545	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	ALMADEN LN		

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Location(OSWCR): ALMADEN LN
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No: WCR2007-010211
City: Romoland
County: Riverside
Decimal Latitude: 33.73575
Decimal Longitude: -117.18033
Location: 26227 Sherman Road
Location(OSWCR): 26227 Sherman Road
City(OSWCR): Romoland
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.73575
Decim Long(OSWCR): -117.18033
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No: WCR2003-013955
City: Sun City
County: Riverside
Decimal Latitude: 33.73575
Decimal Longitude: -117.18033
Location: 26130 Dawson Road
Location(OSWCR): 26130 Dawson Road
City(OSWCR): Sun City
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.73575
Decim Long(OSWCR): -117.18033
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No: WCR1996-009097
City: Perris
County: Riverside
Decimal Latitude: 33.73575
Decimal Longitude: -117.18033
Location: 3222 TRUMBLE RD
Location(OSWCR): 3222 TRUMBLE RD
City(OSWCR): Perris
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.73575
Decim Long(OSWCR): -117.18033
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

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Wells and Additional Sources Detail Report

WCR No:	WCR2000-011681	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	HELENE WAY		
Location(OSWCR):	HELENE WAY		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR2004-011465	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	26340 Trumble Rd, McLaughlin Rd		
Location(OSWCR):	26340 Trumble Rd, McLaughlin Rd		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR2002-014807	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	McLachin Road		
Location(OSWCR):	McLachin Road		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR2001-014182	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	27311 Almaden Lane		
Location(OSWCR):	27311 Almaden Lane		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water		

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Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1998-009327	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	27250 Airstream Way		
Location(OSWCR):	27250 Airstream Way		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1994-012068	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	27195 DIX HILL		
Location(OSWCR):	27195 DIX HILL		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	SSE	0.18	973.55	1,433.48	WATER WELLS

WCR No:	WCR1997-011298	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.18033
Decimal Longitude:	-117.18033		
Location:	DAWSON RD/LOT 87 TRUMBLE FARMS		
Location(OSWCR):	DAWSON RD/LOT 87 TRUMBLE FARMS		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR2001-011815	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside

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Wells and Additional Sources Detail Report

County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	HOMESTEAD TRACT		
Location(OSWCR):	HOMESTEAD TRACT		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1949-000591	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	WATERS HOMESTEAD TRACT		
Location(OSWCR):	WATERS HOMESTEAD TRACT		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1948-001223	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	HOMESTEAD TRACT		
Location(OSWCR):	HOMESTEAD TRACT		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR2011-008196	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	25351 Trumble Road		
Location(OSWCR):	25351 Trumble Road		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

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Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR2001-011814	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR2001-011816	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1982-006453	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	TRUMBLE RD, WATSON		
Location(OSWCR):	TRUMBLE RD, WATSON		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1986-010535	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041

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Decimal Longitude: -117.18041
Location: ANTELOPE RD
Location(OSWCR): ANTELOPE RD
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No: WCR1948-001222
City: None
County: Riverside
Decimal Latitude: 33.75034
Decimal Longitude: -117.18041
Location: LOT 12 HOMESTEAD TRACT
Location(OSWCR): LOT 12 HOMESTEAD TRACT
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.75034
Decim Long(OSWCR): -117.18041
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No: WCR1931-000314
City: None
County: Riverside
Decimal Latitude: 33.75034
Decimal Longitude: -117.18041
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.75034
Decim Long(OSWCR): -117.18041
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No: WCR0064533
City: None
County: Riverside
Decimal Latitude: 33.75034
Decimal Longitude: -117.18041
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.75034
Decim Long(OSWCR): -117.18041
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

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Wells and Additional Sources Detail Report

WCR No:	WCR2001-010826	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR0161986	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR2009-009553	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	25351 Trumble Road		
Location(OSWCR):	25351 Trumble Road		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR2002-013387	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	S/E of Third St N/W of Monroe Ave		

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Wells and Additional Sources Detail Report

Location(OSWCR): S/E of Third St N/W of Monroe Ave
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No: WCR1998-009834
City: None
County: Riverside
Decimal Latitude: 33.75034
Decimal Longitude: -117.18041
Location: WATERS HOMESTEAD TRACT
Location(OSWCR): WATERS HOMESTEAD TRACT
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.75034
Decim Long(OSWCR): -117.18041
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No: WCR1948-001054
City: None
County: Riverside
Decimal Latitude: 33.75034
Decimal Longitude: -117.18041
Location: WATERS HOMESTEAD TRACT
Location(OSWCR): WATERS HOMESTEAD TRACT
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.75034
Decim Long(OSWCR): -117.18041
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No: WCR2011-008195
City: Romoland
County: Riverside
Decimal Latitude: 33.75034
Decimal Longitude: -117.18041
Location: 25351 Trumble Road
Location(OSWCR): 25351 Trumble Road
City(OSWCR): Romoland
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.75034
Decim Long(OSWCR): -117.18041
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

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Wells and Additional Sources Detail Report

WCR No:	WCR1776-008978	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	ANTELOPE RD, MAPLES RD		
Location(OSWCR):	ANTELOPE RD, MAPLES RD		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1948-001431	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	WATERS HOMESTEAD TRACT		
Location(OSWCR):	WATERS HOMESTEAD TRACT		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1951-002197	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	HWY 74, CASE RD, JACKSON, ETHANAC RD		
Location(OSWCR):	HWY 74, CASE RD, JACKSON, ETHANAC RD		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1948-001260	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	WATERS HOMESTEAD TRACT		
Location(OSWCR):	WATERS HOMESTEAD TRACT		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water		

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Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR2001-010764	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1776-011495	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR0294636	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1776-011318	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside

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Wells and Additional Sources Detail Report

County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1950-002407	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	LOT 3 HOMESTEAD TRACT		
Location(OSWCR):	LOT 3 HOMESTEAD TRACT		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1949-000716	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	ROMOLAND TOWNSITE LOT 7		
Location(OSWCR):	ROMOLAND TOWNSITE LOT 7		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1776-008977	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

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Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1950-002105	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	HOMESTEAD TRACT RD		
Location(OSWCR):	HOMESTEAD TRACT RD		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR2009-009552	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	25351 Trumble Road		
Location(OSWCR):	25351 Trumble Road		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1975-003070	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	SCOTT RD		
Location(OSWCR):	SCOTT RD		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1949-000592	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041

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Decimal Longitude: -117.18041
Location: None
Location(OSWCR): None
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No: WCR1952-001781
City: Romoland
County: Riverside
Decimal Latitude: 33.75034
Decimal Longitude: -117.18041
Location: SHERMAN RD, HWY 74
Location(OSWCR): SHERMAN RD, HWY 74
City(OSWCR): Romoland
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.75034
Decim Long(OSWCR): -117.18041
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No: WCR2011-008197
City: Romoland
County: Riverside
Decimal Latitude: 33.75034
Decimal Longitude: -117.18041
Location: 25351 Trumble Road
Location(OSWCR): 25351 Trumble Road
City(OSWCR): Romoland
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.75034
Decim Long(OSWCR): -117.18041
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No: WCR1953-002174
City: Nuevo
County: Riverside
Decimal Latitude: 33.75034
Decimal Longitude: -117.18041
Location: None
Location(OSWCR): None
City(OSWCR): Nuevo
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.75034
Decim Long(OSWCR): -117.18041
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

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Wells and Additional Sources Detail Report

WCR No:	WCR2009-008827	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	25351 Trumble Road		
Location(OSWCR):	25351 Trumble Road		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR2006-012430	City(OSWCR):	Perris
City:	Perris	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	3230 Trumble Road		
Location(OSWCR):	3230 Trumble Road		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.66	3,508.13	1,434.33	WATER WELLS

WCR No:	WCR1953-001820	City(OSWCR):	Nuevo
City:	Nuevo	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.75034
Decimal Latitude:	33.75034	Decim Long(OSWCR):	-117.18041
Decimal Longitude:	-117.18041		
Location:	SHERMAN RD, JACKSON AVE, HWY 74		
Location(OSWCR):	SHERMAN RD, JACKSON AVE, HWY 74		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
20	WSW	0.84	4,412.99	1,425.48	WATER WELLS

WCR No:	WCR2001-014313	City(OSWCR):	Perris
City:	Perris	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.7349
Decimal Latitude:	33.7349	Decim Long(OSWCR):	-117.1964972
Decimal Longitude:	-117.1964972		
Location:	S/W Corner of McLaughlin & Evans		

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Wells and Additional Sources Detail Report

Location(OSWCR): S/W Corner of McLaughlin & Evans
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	WSW	0.88	4,672.16	1,424.48	WATER WELLS

WCR No: WCR0161688
City: None
County: Riverside
Decimal Latitude: 33.73575
Decimal Longitude: -117.19764
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.73575
Decim Long(OSWCR): -117.19764
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	WSW	0.88	4,672.16	1,424.48	WATER WELLS

WCR No: WCR2001-010828
City: None
County: Riverside
Decimal Latitude: 33.73575
Decimal Longitude: -117.19764
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.73575
Decim Long(OSWCR): -117.19764
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	WSW	0.88	4,672.16	1,424.48	WATER WELLS

WCR No: WCR2001-011824
City: None
County: Riverside
Decimal Latitude: 33.73575
Decimal Longitude: -117.19764
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.73575
Decim Long(OSWCR): -117.19764
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	WSW	0.88	4,672.16	1,424.48	WATER WELLS

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Wells and Additional Sources Detail Report

WCR No:	WCR1776-010975	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.19764
Decimal Longitude:	-117.19764		
Location:	QUADRANGLE ELSINORE		
Location(OSWCR):	QUADRANGLE ELSINORE		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	WSW	0.88	4,672.16	1,424.48	WATER WELLS

WCR No:	WCR1776-010974	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.19764
Decimal Longitude:	-117.19764		
Location:	QUADRANGLE ELSINORE		
Location(OSWCR):	QUADRANGLE ELSINORE		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	WSW	0.88	4,672.16	1,424.48	WATER WELLS

WCR No:	WCR2001-010829	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.19764
Decimal Longitude:	-117.19764		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	WSW	0.88	4,672.16	1,424.48	WATER WELLS

WCR No:	WCR1776-008988	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.19764
Decimal Longitude:	-117.19764		
Location:	ELSINORE		
Location(OSWCR):	ELSINORE		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water		

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Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	WSW	0.88	4,672.16	1,424.48	WATER WELLS

WCR No:	WCR2013-009039	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.19764
Decimal Longitude:	-117.19764		
Location:	26342 Corsica Lane		
Location(OSWCR):	26342 Corsica Lane		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	WSW	0.88	4,672.16	1,424.48	WATER WELLS

WCR No:	WCR1776-008989	City(OSWCR):	Romoland
City:	Romoland	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.19764
Decimal Longitude:	-117.19764		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	WSW	0.88	4,672.16	1,424.48	WATER WELLS

WCR No:	WCR1776-004439	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.19764
Decimal Longitude:	-117.19764		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	WSW	0.88	4,672.16	1,424.48	WATER WELLS

WCR No:	WCR2001-011823	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside

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Wells and Additional Sources Detail Report

County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.19764
Decimal Longitude:	-117.19764		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	WSW	0.88	4,672.16	1,424.48	WATER WELLS

WCR No:	WCR1987-012673	City(OSWCR):	Sun City
City:	Sun City	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.19764
Decimal Longitude:	-117.19764		
Location:	ETHANIC RD, BARNETT RD		
Location(OSWCR):	ETHANIC RD, BARNETT RD		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	WSW	0.88	4,672.16	1,424.48	WATER WELLS

WCR No:	WCR2001-013918	City(OSWCR):	Perris
City:	Perris	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.73575
Decimal Latitude:	33.73575	Decim Long(OSWCR):	-117.19764
Decimal Longitude:	-117.19764		
Location:	S/W corner of McLaughlin & Evans		
Location(OSWCR):	S/W corner of McLaughlin & Evans		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

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Radon Information

This section lists any relevant radon information found for the target property.

Federal EPA Radon Zone for *RIVERSIDE* County: **2**

Zone 1: Counties with predicted average indoor radon screening levels greater than 4 pCi/L
Zone 2: Counties with predicted average indoor radon screening levels from 2 to 4 pCi/L
Zone 3: Counties with predicted average indoor radon screening levels less than 2 pCi/L

Federal Area Radon Information for *RIVERSIDE* County

No Measures/Homes:	24
Geometric Mean:	0.3
Arithmetic Mean:	0.3
Median:	0.5
Standard Deviation:	0.8
Maximum:	1.7
% >4 pCi/L:	0
% >20 pCi/L:	0
Notes on Data Table:	TABLE 1. Screening indoor radon data from the EPA/State Residential Radon Survey of California conducted during 1989-90. Data represent 2-7 day charcoal canister measurements from the lowest level of each home tested.

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Appendix

Federal Sources

FEMA National Flood Hazard Layer — **FEMA FLOOD**

The National Flood Hazard Layer (NFHL) data incorporates Flood Insurance Rate Map (FIRM) databases published by the Federal Emergency Management Agency (FEMA), and any Letters Of Map Revision (LOMRs) that have been issued against those databases since their publication date. The FIRM Database is the digital, geospatial version of the flood hazard information shown on the published paper FIRMs. The FIRM Database depicts flood risk information and supporting data used to develop the risk data. The FIRM Database is derived from Flood Insurance Studies (FISs), previously published FIRMs, flood hazard analyses performed in support of the FISs and FIRMs, and new mapping data, where available.

Indoor Radon Data — **INDOOR RADON**

Indoor radon measurements tracked by the Environmental Protection Agency(EPA) and the State Residential Radon Survey.

Public Water Systems Violations and Enforcement Data — **PWSV**

List of drinking water violations and enforcement actions from the Safe Drinking Water Information System (SDWIS) made available by the Drinking Water Protection Division of the US EPA's Office of Groundwater and Drinking Water. Enforcement sensitive actions are not included in the data released by the EPA. Address information provided in SWDIS may correspond either with the physical location of the water system, or with a contact address.

Radon Zone Level — **RADON ZONE**

Areas showing the level of Radon Zones (level 1, 2 or 3) by county. This data is maintained by the Environmental Protection Agency (EPA).

Safe Drinking Water Information System (SDWIS) — **SDWIS**

The Safe Drinking Water Information System (SDWIS) contains information about public water systems as reported to US Environmental Protection Agency (EPA) by the states. Addresses may correspond with the location of the water system, or with a contact address.

Soil Survey Geographic database — **SSURGO**

The Soil Survey Geographic database (SSURGO) contains information about soil as collected by the National Cooperative Soil Survey at the Natural Resources Conservation Service (NRCS). Soil maps outline areas called map units. The map units are linked to soil properties in a database. Each map unit may contain one to three major components and some minor components.

U.S. Fish & Wildlife Service Wetland Data — **US WETLAND**

The U.S. Fish & Wildlife Service Wetland layer represents the approximate location and type of wetlands and deepwater habitats in the United States.

USGS Current Topo — **US TOPO**

US Topo topographic maps are produced by the National Geospatial Program of the U.S. Geological Survey (USGS). The project was launched in late 2009, and the term "US Topo" refers specifically to quadrangle topographic maps published in 2009 and later.

USGS Geology — **US GEOLOGY**

Seamless maps depicting geological information provided by the United States Geological Survey (USGS).

USGS National Water Information System — **FED USGS**

The U.S. Geological Survey (USGS)'s National Water Information System (NWIS) is the nation's principal repository of water resources data. This database includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data.

State Sources

Oil and Gas Wells — **OGW**

A list of Oil and Gas well locations. This is provided by California's Department of Conservation Division of

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Appendix

Oil, Gas and Geothermal Resources.

Periodic Groundwater Level Measurement Locations **MONITOR WELLS**

Locations of groundwater level monitoring wells in the Department of Water Resources (DWR)'s Periodic Groundwater Levels dataset. The DWR Periodic Groundwater Levels dataset contains seasonal and long-term groundwater level measurements collected by the Department of Water Resources and cooperating agencies.

Well Completion Reports **WATER WELLS**

List of wells from the Well Completion Reports data made available by the California Department of Water Resources' (DWR) Online System for Well Completion Reports (OSWCR). Please note that the majority of well completion reports have been spatially registered to the center of the 1x1 mile Public Land Survey System section that the well is located in.

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APPENDIX D: QUALIFICATIONS/INSURANCE

PARTNER

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PARTNER

Margaret R. Thomas
Project Assessor

Education

Bachelor of Arts, Political Science, University of California, Irvine, CA
Diploma, Executive Assistant Business Program, Heald Business College, Hayward, CA

Registrations

California EPA Registered Environmental Assessor I – 07364
California OSHA Certified Site Surveillance Technician No. 97-2116

Training

40-Hour OSHA HAZWOPER Training
EPA-Certified AHERA Asbestos Building Inspector
EPA-Certified AHERA Contractor/Supervisor/Competent Person

Highlights

15 + years of experience in the environmental due diligence industry:

- Phase I Environmental Site Assessments
- Phase II Environmental Site Assessments
- Property Condition Assessments
- Asbestos Surveys
- Transaction Screen Assessments
- Environmental Desktop Reviews and Reports
- UST Removal
- Regulatory Work Plan Preparation for remediation of hazardous materials
- Business Development / Client Relations

Experience Summary

Ms. Thomas is a Project Assessor at Partner Engineering and Science, Inc. (Partner) and is located out of the Torrance, California office. She is responsible for conducting Phase I Environmental Site Assessments (ESA) including site reconnaissance, regulatory file review, historical research, interpretation of data and maps, and technical writing. Ms. Thomas has broad project experience from small privately owned properties to large portfolios of industrial sites in both the private and public sectors. This experience includes properties with impact to soil and groundwater from petroleum and solvent releases and required extensive regulatory file review. Ms. Thomas has received training in risk management and liability as it pertains to environmentally impacted properties.

Project Experience

Initial Site Assessment for Freeway Expansion, Los Angeles County, California. Performed an *Initial Site Assessment* for California Department of Transportation (Caltrans) for the Interstate 5 Freeway expansion project in Burbank, Glendale and Los Angeles, which included 10 miles of assessment area and many properties with hazardous materials, USTs and groundwater contamination issues.

Initial Study and Biological Survey, Madera, California. City of Madera, California: Performed an *Initial Study* for the City of Madera Wastewater Treatment Plant expansion project, which included a Biological Survey

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and assessment for hazardous materials.

Phase I Environmental Site Assessment and Underground Storage Tank Removal, Beverly Hills, California. Project Manager for the removal of an old waste oil underground storage tank that was identified through due diligence research, which was subsequently removed and received case closure from the Los Angeles County Environmental Programs Division.

Phase II Environmental Site Assessment and Work Plan for Remedial Action, Garden Grove, California. Project Manager for site characterization of a former dry cleaner that included a soil gas survey, soil sampling and the installation of five groundwater monitoring wells. Ms. Thomas conducted the initial Phase II ESA, which identified soil and groundwater impact. Preparation of a Work Plan for site characterization was approved by the Santa Ana Regional Water Quality Control Board and implemented.

Phase II Environmental Site Assessment, Inglewood, California. Project Manager of a *Phase II ESA* on a former gas station property that was redeveloped in the early 1980s into a coin operated laundry mat. The client was a prospective buyer of the property. Limited information pertaining to the former gas station was identified at the local regulatory agencies; therefore, a Phase II scope of work was designed and implemented to best identify the former UST and piping locations. Significantly contaminated soil was identified.

Phase I Environmental Site Assessment, Downtown Los Angeles, California. Performed a *Phase I ESA* for the Los Angeles County Metropolitan Transportation Authority (MTA) for its Division One Bus Depot Expansion project on a site in downtown Los Angeles that was a former Texaco Super Truck Service Depot with former fueling, carwash and automotive services. Ms. Thomas has performed several Phase I ESA projects for the Los Angeles County MTA.

Contact

mathomas@partneresi.com

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PARTNER

Janet Annan
Technical Director

Education

Bachelor of Arts, Geology, University of Kansas, Lawrence, Kansas

Training

AHERA Inspector for Asbestos and 40 CFR Part 61 NESHAP
Kansas Certification # 7ACT121306MOI-387
Missouri Certification #7001122806MoII12650
Underground Storage Tank Operator Certification #A/B00003318

Highlights

Over 18 years in environmental, engineering, and industrial hygiene service industries
Experienced in performing and supervising Phase I, Phase II Site Assessments and various multi-scope assessments
Provides expert-specific due diligence services and customer service to lenders, investors, institution, occupiers and private equity clients internationally

Experience Summary

Ms. Annan is Technical Director of Partner Engineering and Science, Inc. (Partner). Ms. Annan is responsible for overall management of staff, project managers, training, mentoring, proposal writing, portfolio management and reviews.

Ms. Annan has over 18 years of project experience in the environmental, engineering, and industrial hygiene service industries. She has significant experience in due diligence assessments for a variety of property types and the needs and requirements of varied number of reporting standards, including ASTM standards, EPA's All Appropriate Inquiry (AAI), Fannie Mae and Freddie Mac, The U.S. Small Business Administration (SBA) and customized client formats. Specifically, Ms. Annan has performed and supervised Phase I and Phase II Site Assessments, Baseline and Exit Assessments, Environmental Transaction Screen Reports, Subsurface Investigations, Records Search Risk Assessments, SBA Farm Loans, SBA Appeals, Peer Reviews, Limited Compliance Overviews, Asbestos Surveys, Radon Measurement and Mitigation Surveys, National Environmental Policy Protection Act (NEPA), "hands-on" field investigations relating specifically to Kansas and Missouri Risk Based Corrective Action (KRBCA and MRBCA), remediation projects at active and abandoned hazardous waste facilities including formerly used defense (FUD) sites, CERCLA sites with Community Involvement, and hazardous material emergency response.

Ms. Annan's diversity and in-depth across residential, industrial, municipal, and commercial environments is a major contribution to Partner Engineering and Science Inc.'s (Partner) associate team in the Midwest region of the United States.

Project Experience

Portfolio Management, Multiple Locations - Ms. Annan's management techniques utilize a special skill set requiring strong organizational and communication skills in order to execute all aspects of portfolio due diligence process including but not limited to staffing, reviewing reports and ensuring timely delivery of portfolios of all sizes.

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Records Search and Risk Assessment (RSRA) and Database Reviews, Multiple Locations - Ms. Annan is responsible for all aspects of the due diligence process including but not limited to staffing, reviewing reports and ensuring timely delivery and adherence to the SBA regulations for properties.

Phase I Environmental Site Assessments, Multiple Locations - Ms. Annan is responsible for all aspects of Phase I site investigations from cradle to grave including proposal writing, staffing projects, client liaison, site reconnaissance to record reviews for commercial, residential and industrial properties. Ms. Annan has completed over 1,500 Phase I Environmental Assessments for numerous real estate developers, communication companies, brokers, attorneys, and property owners in order to complete due diligence requirements for property transfers and acquisitions including SBA, Fannie Mae and Freddie Mac.

Phase II Subsurface Investigations and Baseline Assessments, Multiple Locations - Ms. Annan is responsible for conducting all aspects of Phase II Subsurface Investigations and Baseline Assessments from cradle to grave including proposal writing, staffing projects, client and subcontractor liaison, onsite oversight and drilling, report writing, report and reviews for commercial, residential and industrial properties.

UST Removal and Compliance, Major Retail Petroleum Operator, Kansas and Missouri - Ms. Annan has managed, performed and conducted all aspects of a UST removal activities at retail petroleum sites in Kansas and Missouri. Duties include from cradle to grave, proposal writing, oversight, waste manifesting, soil and groundwater sampling, report writing and review for the removal of USTs present at a site. Ms. Annan has managed, performed and conducted all aspects of a UST compliance activities at retail petroleum sites in Kansas. Duties include from performing onsite inspection of pump islands, sumps, tanks product level checks and statistical inventory records checks.

Soil, Groundwater and Soil Vapor Investigations, Major Petroleum Operator and Various Lenders and Buyers, Kansas, Missouri and Minnesota - Ms. Annan has managed, performed and conducted all aspects of a soil, groundwater, soil vapor sampling activities at retail petroleum and/or former dry cleaning sites. In addition, Ms. Annan has managed and conducted direct push, duel-tube and/or split spoon sampling and logging soil borings for installing of wells at multiple locations throughout Kansas and Missouri. uties include from proposal writing, soil gas well installation, sampling utilizing tedlar bags and/or summa canisters, mass removal calculations, reporting and reviewing.

Affiliations

Active Member of CREW Kansas City

Speaking

Women in CRE – KC Market Update, November 2021. Ms. Annan was a panelist for the KC Market Update to discuss the trends of CRE in the Kansas City Metropolitan area.

Revisions to SBA SOP 50 10 6, Partner Engineering and Science, Inc., October 2020. Ms. Annan led an overview of discussion pointing out the changes of the SBA SOP 50 10 6, a policy refresher and Overview of the SBA Loan Program.

Perspectives on Revisions to SBA SOP 50 10 5 (J), Environmental Bankers Association (EBA) Conference, June 2018. Ms. Annan was a panelist alongside Eric Adams, SBA, David Lambert, Wells Fargo; Georgina Dannatt, Bank of the West to discuss the industry impact of the changes to the environmental policy.

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What SBA Lenders Need to Know About the New SOP 5010(J) Effective Jan 1, Coleman Webinar, November 2017. Ms. Annan was a guest speaker alongside Lance Sexton, former SBA Deputy Director to present a summary of the changes in the SBA Environmental Policy.

Publications

*What's New in SBA SOP 50 10 6: A Review of Environmental Policy Update (*www.partneresi.com/resources/blog*),* September 2020. Ms. Annan discusses the new environmental due diligence requirements and changes within the new SOP.

*FAQs of the Tiered Environmental Due Diligence (*www.partneresi.com/resources/blog*),* September 2020. Ms. Annan discusses the benefits of a tiered approach to environmental due diligence.

*2020 "New" Crash Course SBA (*www.partneresi.com/resources/blog*),* September 2020. Ms. Annan discusses key points in a series of updated SBA Topics, such as, Why Should you Care; The Environmental Questionnaire; The RSRA; The TSA; SBA Screen Outs and Appeals, Reliance Letters; and, Phase I ESAs and Beyond

Small Business Administration SOP 50 10 5(K) Updates: What It Means for Your Risk Management (www.globest.com), March 29, 2019 and *Top Seven Risk Management Considerations from the Latest SBA SOP 50 10 5 (K) Updates (www.colemanreport.com),* April 16, 2019. Ms. Annan and colleague, Joey Bonin, discuss the new environmental due diligence requirements and construction risk management guidance which require knowledgeable, experienced consultants for SBA Loans.

Records Search with Risk Assessment vs. Transaction Screen Assessment for SBA Loans (www.partneresi.com/resources/blog), April 4, 2019. Ms. Annan discusses the tiered approach to environmental due diligence for lowered liability and risk management for involved stakeholders.

What is "Green" Dry Cleaning…and Is It Safe? (www.partneresi.com/resources/blog), October 9, 2018. Ms. Annan discusses the questions regarding the environmentally friendly nature of the green drycleaner and the environmental consideration and precautions to be considered.

Contact

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PARTNER

Misty Vazquez Ponce, PE
Principal

Education

M.S. Civil-Environmental Engineering, California State University, Fullerton
B.S. Environmental Engineering, University of California, Riverside
Coursework in Legal and Regulatory Framework for Environmental Management, University of California Irvine
Coursework in Mold Inspection

Registrations

Professional Engineer, Colorado
Engineer-In Training (EIT), California
State of California Registered Environmental Assessor (program canceled in July 2012)
LEED Green Associate (GA) Accredited Professional, United States Green Building Council
AHERA Certified Building Inspector for Asbestos

Training

OSHA 40-hour HAZWOPER, Operations Level Health and Safety Training
OSHA 10-hour Construction Safety Training
Trained/Certified – Hazardous Waste in California, US Department of Transportation Hazardous Materials Transportation, and USEPA Hazardous/Toxic Waste management (LION)

Highlights

Over 16 years in the environmental and engineering consulting industry with institutional and private clients
Environmental Engineer
Extensive knowledge of real estate due diligence
Phase I and Phase II Environmental Site Assessments
Site Mitigation and Remediation

Experience Summary

Ms. Ponce is an environmental engineer with more than 16 years of experience in the environmental and engineering services industries. As a Principal and National Client Manager working within Partner's Investment Advisory Group, Ms. Ponce strives to provide the expected high level of client service for the Equity Asset Management industry.

Ms. Ponce has significant experience in the field of environmental due diligence, site assessment, remediation, and regulatory compliance. Ms. Ponce provides environmental support to clients nationwide during the acquisition, disposition, development, and on-going management and operation of commercial, industrial, and multifamily residential properties.

Ms. Ponce has considerable experience in Phase I and Phase II Environmental Site Assessments (ESAs) of commercial, agricultural, and industrial properties and projects involving water quality, soil quality, and regulatory compliance including hazardous and solid waste site characterization and remediation; remediation system design installation, and operation; tank removals; asbestos surveys; lead-based paint surveys; radon studies; mold assessments; lead-in water sampling and analysis; and technical reporting.

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Ms. Ponce has been involved with feasibility and treatability studies associated with several remediation projects including soil and groundwater treatment systems, UST/LUST closures, and management of construction soils generated during redevelopment of agricultural and industrial properties. Other equity and finance level services managed and directed by Ms. Ponce include management of Property Condition Assessments, ALTA Land Surveys, zoning reports, Seismic Risk Assessments (PML), Construction Risk Management, construction monitoring services, and construction document cost review analysis.

Real estate investors, financial institutions, insurance lenders, property managers, developers, and brokers have come to rely on her advice and judgment to help them with their real estate business decisions. Ms. Ponce is a dedicated professional who takes pride and pleasure in meeting her client's needs and spearheading and assembling the team with the expertise to handle any issue that may come up during the real estate transaction.

Project Experience

Ms. Ponce has conducted, managed, and directed thousands of ESAs, industrial hygiene, and engineering assessments throughout her career, nationally and globally. The following select projects and client base provide a glimpse of her consulting experience and due diligence background:

Ford Leasing Development Company / Sunset Ford, Westminster, California. Conducted a Phase I and II ESA and remedial activities at a closing automobile dealership with 41 service bays containing active, decommissioned, or removed in-ground hydraulic vehicle lifts. The Phase II ESA identified petroleum hydrocarbon and VOC impacts in soil and groundwater in the immediate vicinity of the lifts. Based on the identified impacts, managed the removal of all lifts and contaminated soil under regulatory oversight and conducted a comprehensive site investigation, including well installation and soil, groundwater, and soil vapor sampling. Prepared and submitted final reports to the client and regulatory agencies and obtained regulatory site closure.

UBS Realty Investors, LLC, Riverside, California. Conducted a Phase I ESA of an approximately 36-acre commercial shopping center containing retail stores; restaurants; banks; grocery stores; a movie theater; hair, nail, and beauty salons; and a dry cleaner in a total of 16 buildings. Work included site reconnaissance, tenant inspections, site history review, database search, and final report preparation with recommendations for additional assessment.

USDA Forest Service, Mountain Center, California. Prepared a Soil Excavation and Groundwater Well Installation Workplan to assess a release that was discovered during the removal of two 1,000-gallon USTs. Elevated contaminant concentrations were detected in confirmation soil samples collected at that time. Installed one groundwater monitoring well into fractured bedrock and later abandoned the well due to planned excavation activities in the area. A groundwater sample collected prior to well abandonment contained elevated contaminant concentrations. Prepared a Site Investigation Summary Report summarizing site activities and investigations to date. Prepared a Groundwater Assessment Workplan to assess the extent of contaminant concentrations in groundwater. Site assessment work is pending.

American Golf Corporation, Eighteen Sites in Southern California. Managed underground storage tank removal and closure activities. Work included performing initial confirmation soil sampling and analysis and subsequent monitoring and soil and/or groundwater testing in association with the removal of the underground storage tanks, associated dispensers, and piping at sixteen sites located throughout Southern

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California. Prepared soil and/or groundwater investigation workplans as needed to address contamination issues at several of the sites and closure reports for the various State and local authorities. To date, regulatory closure has been obtained at most of the facilities. Currently managing ongoing monitoring and/or remediation is occurring at several of the facilities.

G.E. Capital, Tijuana, Mexico. Managed and conducted more than 30 Phase I and Phase II ESAs for active and proposed industrial developments within various areas of Tijuana, Mexico. Work included site reconnaissance, site history review, and final report preparation.

Affiliations

Member, Commercial Real Estate Development Association (NAIOP)
Member, Urban Land Institute (ULI)
Member, National Ground Water Association (NGWA)
Associate Member, American Society of Civil Engineers (ASCE)
Member, Commercial Real Estate Women (CREW)
Member, Groundwater Resources Association (GRA) of California
Intern Environmental Engineer, American Academy of Environmental Engineers (AAEE)
Member, International Council of Shopping Centers (ICSC)

Contact

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PARTNER

SHALLOW SOIL INVESTIGATION REPORT

Menifee Assemblage

Eight Parcels Southeast of Ethanac Road and Dawson Road
Menifee, California 92585

August 22, 2022
Partner Project Number: 21-308686.8

Prepared for:

Core5 Industrial Partners
300 Spectrum Center Drive, Suite 880
Irvine, California 92618

Engineers who understand your business

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PARTNER

August 22, 2022

Mr. Jon Kelly
Core5 Industrial Partners
300 Spectrum Center Drive, Suite 880
Irvine, California 92618

Subject: Shallow Soil Investigation Report
Menifee Assemblage
Eight Parcels Southeast of Ethanac Road and Dawson Road
Menifee, California 92585
Partner Project Number: 21-308686.8

Dear Mr. Kelly:

Partner Engineering and Science, Inc. is pleased to provide the results of the assessment performed at the above-referenced property. The following report describes the field activities, methods, and findings of the Shallow Soil Investigation conducted at the above-referenced property.

This assessment was performed consistent with acceptable industry standards. The independent conclusions represent Partner's best professional judgment based upon existing conditions and the information and data available to us during the course of this assignment.

We appreciate the opportunity to provide these services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact Misty Ponce at (818) 337-1203.

Sincerely,

Partner Engineering and Science, Inc.

Bryan Sanchez
Environmental Scientist/Professional

Caroline Ziegler, PG
Senior Author

PROFESSIONAL GEOLOGIST
CAROLINE A. ZIEGLER
No. 7825
STATE OF CALIFORNIA

Misty Ponce
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Lauren Hinch, GIT
Project Geologist

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1.0 INTRODUCTION

1.1 Purpose

The purpose of the investigation was to evaluate the potential impact of organochlorine pesticides (OCPs), metals, and/or fecal coliform to soil. Core5 Industrial Partners provided project authorization of Partner Proposal Number P21-308686.7A.

1.2 Limitations

This report presents a summary of work conducted by Partner. The work includes observations of site conditions encountered and the analytical results provided by an independent third-party laboratory of samples collected during the course of the project. The number and location of samples were selected to provide the required information. It cannot be assumed that the limited available data are representative of subsurface conditions in areas not sampled.

Conclusions and/or recommendations are based on the observations, laboratory analyses, and the governing regulations. Conclusions and/or recommendations beyond those stated and reported herein should not be inferred from this document.

Partner warrants that the environmental consulting services contained herein were accomplished in accordance with generally accepted practices in the environmental engineering, geology, and hydrogeology fields that existed at the time and location of work. No other warranties are implied or expressed.

1.3 User Reliance

Partner was engaged by Core5 Industrial Partners (the Addressee), or their authorized representative, to perform this investigation. The engagement agreement specifically states the scope and purpose of the investigation, as well as the contractual obligations and limitations of both parties. This report and the information therein, are for the exclusive use of the Addressee. This report has no other purpose and may not be relied upon, or used, by any other person or entity without the written consent of Partner. Third parties that obtain this report, or the information therein, shall have no rights of recourse or recovery against Partner, its officers, employees, vendors, successors or assigns. Any such unauthorized user shall be responsible to protect, indemnify and hold Partner, the Addressee and their respective officers, employees, vendors, successors and assigns harmless from any and all claims, damages, losses, liabilities, expenses (including reasonable attorneys' fees) and costs attributable to such use. Unauthorized use of this report shall constitute acceptance of, and commitment to, these responsibilities, which shall be irrevocable and shall apply regardless of the cause of action or legal theory pled or asserted.

This report has been completed under specific Terms and Conditions relating to scope, relying parties, limitations of liability, indemnification, dispute resolution, and other factors relevant to any reliance on this report. Any parties relying on this report do so having accepted Partner's standard Terms and Conditions, a copy of which can be found at http://www.partneresi.com/terms-and-conditions.php.

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2.0 SITE BACKGROUND

2.1 Site Description

The subject property consists of eight parcels of land comprising 45.46 acres located on the southeast corner of the Ethanac Road and Dawson Road intersection within a mixed agriculture, industrial and residential area of Menifee, Riverside County, California. Three parcels are currently developed with a storage yard and have been occupied by Sahara Scaffold Inc. since 2017. The remaining five parcels are currently vacant and remain as undeveloped land.

The subject properties are bound by various residential and storage lots to the north, an industrial property to the east across Antelope Road, a commercial property to the south, and an agricultural property across Dawson Road to the west. Refer to Figure 1 for a site vicinity map showing site features and surrounding properties.

2.2 Site History

Partner completed a *Phase I Environmental Site Assessment Report* (Phase I) for the subject property, dated June 6, 2022, on behalf of Core5 Industrial Partners.

No recognized environmental conditions (RECs) were identified in the Phase I; however, the City of Menifee is requesting sampling of the vacant parcels due to their location within an area of sludge application.

2.3 Geology

Review of the United States Geological Survey (USGS) *Romoland, CA* Quadrangle topographic map, indicates the subject property is situated approximately 1460 feet above mean sea level, and the local topography is sloping gently to the west. Refer to Figure 2 for a topographic map of the site vicinity.

The subject property is located in the Perris Plain in the central portion of the Perris Block of the Peninsular Range Province of Southern California. The Perris Plain is a major topographic feature in the area. The surrounding regional geology includes the Peninsular Ranges (Santa Rosa and San Jacinto Mountains) to the east and southeast, the Transverse Ranges (San Gabriel and San Bernardino Mountains) to the north and northeast and the Los Angeles Basin and Santa Ana Mountains to the west and southwest. Locally, the subject property is underlain by Quaternary age alluvium and fluvial deposits.

Based on the excavations advanced during this investigation, the underlaying subsurface consisted predominantly of aggregate base from ground surface to approximately 0.5 feet below ground surface (bgs). From 0.5 to 1 feet bgs, the subsurface consists predominantly of brown to dark brown silty to sandy soils.

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3.0 FIELD ACTIVITIES

The Shallow Soil Investigation scope included the collection and analysis of 46 discrete shallow soil samples (SS-1 through SS-46) per the Department of Toxic Substances Control (DTSC) 2008 report *Interim Guidance for Sampling Agricultural Properties (Third Revision).* Refer to Table 1 for a summary of the samples, sampling schedule, and laboratory analysis for this investigation.

3.1 Preparatory Activities

Prior to the initiation of fieldwork, Partner completed the following activities.

3.1.1 Health and Safety Plan

Partner prepared a site-specific Health and Safety Plan, which was reviewed with on-site personnel involved in the project prior to the commencement of drilling activities.

3.2 Soil Sampling Equipment

Discrete soil samples were collected using a narrow head shovel and pickaxe. Sampling equipment was decontaminated between sample intervals and boring locations to prevent cross-contamination.

3.3 Sample Locations

Discrete samples SS-1 through SS-46 were collected in a grid-like pattern throughout the subject properties on approximately 1-acre centers.

Refer to Figure 3 for a map indicating sample locations.

3.4 Soil Sampling

The subject property was divided into 46 subareas and a discrete representative soil sample was collected from a location within each section. Each soil sample was collected from a depth of six inches below ground surface (bgs) and transferred into a laboratory-provided four-ounce, wide-mouthed, unpreserved glass jar, which was sealed with a threaded, Teflon-lined lid. The jars were filled with soil to capacity to minimize headspace and reduce the potential for volatilization. The jars were labeled for identification and stored in an iced cooler.

Following the collection of the soil samples (SS-1 through SS-46), 10 representative composite samples (Comp-1 through Comp-10) were compiled at the laboratory from the available soil samples. Refer to Table 1 for an outline of the discrete and composite soil samples.

3.5 Post-Sampling Activities

No significant amounts of derived wastes were generated during this investigation.

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4.0 DATA ANALYSIS

4.1 Laboratory Analysis

Partner collected 46 soil samples on August 1, 2022, which were transported in an iced cooler under chain-of-custody protocol to Alpha Scientific Corporation (Alpha), a state-certified laboratory [Environmental Laboratory Accreditation Program (ELAP) certificate number 3007] in the City of Cerritos, California, for analysis. One discrete soil sample per composite grid area was analyzed for California Administrative Manual (CAM) 17 metals via EPA Method 6010/7471. Based on proximity, depth and location, the 46 discrete soil samples were composited into 10 composite samples at the laboratory (Comp-1 through Comp-10), then each composite sample was analyzed for organochlorine pesticides (OCPs) via EPA Method 8081.

Additionally, Partner transported one discrete soil sample per composite grid area (10 samples total) in an iced cooler under chain-of-custody protocol to Enthalpy Analytical (Enthalpy), a state-certified laboratory [Environmental Laboratory Accreditation Program (ELAP) certificate number 1338] in the City of Orange, California, for analysis of fecal coliform via EPA Method SM9221-E.

Laboratory analytical results are included in Appendix A and discussed below.

4.2 Regulatory Agency Comparison Criteria

Department of Toxic Substances Control Regional Screening Levels

Regional Screening Levels (RSLs) are generic, risk-based chemical concentrations developed by the EPA for use in initial screening-level evaluations. RSLs combine human health toxicity values with standard exposure factors to estimate contaminant concentrations that are considered to be health protective of human exposures over a lifetime through direct-contact exposure pathways (e.g., via inhalation and/or ingestion of and/or dermal contact with impacted soil and/or indoor air). RSLs are not legally enforceable standards, but rather are considered guidelines to evaluate if potential risks associated with encountered chemical impacts may warrant further evaluation.

The Department of Toxic Substances Control (DTSC) Office of Human and Ecological Risk (HERO) developed California-Modified RSLs based on a review of 1) RSL concentrations, and 2) recent toxicity values.

4.3 Soil Sample Data Analysis

4,4′-DDE was detected in each of the analyzed composite samples (Comp-1 through Comp-10), at concentrations exceeding the laboratory Practical Quantitation Limit (PQL). The detected concentrations do not exceed commercial/industrial RSLs.

Dieldrin and 4,4′-DDT were detected in composite sample Comp-7 at concentrations exceeding laboratory PQLs. The detected concentrations do not exceed commercial/industrial RSLs.

Various metals, including arsenic; barium; chromium; cobalt; copper; lead; molybdenum; nickel; silver; thallium; vanadium; and zinc, were detected in the analyzed soil samples at concentrations above laboratory PQLs. With the exception of arsenic and chromium, the detected concentrations of metals were below applicable commercial/industrial RSLs.

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Arsenic was detected in nine of the ten analyzed discrete soil samples (SS-04, SS-8, SS-15, SS-22, SS-33, SS-36, SS-38, and SS-46) at concentrations ranging from 0.72 to 5.0 milligrams per kilogram (mg/kg) which exceed the commercial/industrial RSL of 0.36 mg/kg. However, the detected concentrations of arsenic do not exceed background concentrations for the region.

Chromium was detected in each of the analyzed discrete soil samples (SS-04, SS-8, SS-11, SS-15, SS-22, SS-33, SS-36, SS-38, and SS-46) at concentrations ranging from 6.0 to 21.3 mg/kg. Nine of the ten detected concentrations (SS-04, SS-8, SS-15, SS-22, SS-33, SS-36, SS-38, and SS-46) exceed the commercial/industrial RSL of 6.2 mg/kg. However, the detected concentrations of chromium do not exceed background concentrations for the region.

None of the analyzed soil samples contained detectable concentrations of fecal coliform above the laboratory reporting limit (RL). The laboratory RL is below applicable commercial/industrial RSLs.

Refer to Tables 2 and 3 for summary results of the soil sample OCPs and CAM metals laboratory analysis, respectively.

4.4 Discussion

None of the analyzed soil samples contained OCPs or fecal coliform in excess of applicable regulatory screening criteria and/or typical background concentrations.

None of the analyzed soil samples exceeded the background concentrations of metals for typical California soils as based on the Kearney Foundation of Soil Science March 1996 Background Concentrations of Trace and Major Elements in California Soils Report.

Based on the above information, there does not appear to be a significant concern to human health and/or the environment at this time.

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5.0 SUMMARY AND CONCLUSIONS

Partner conducted a Shallow Soil Investigation at the subject property to evaluate the potential impact of OCPs, metals, and/or fecal coliform as a consequence of a release or releases from the former on-site agricultural activities including sludge application. The scope of the Shallow Soil Investigation included the collection of 46 discrete shallow soil samples, which were composited into ten composite soil samples for the OCP analysis. Ten discrete samples were tested for metals and fecal coliform.

None of the analyzed soil samples contained OCPs or fecal coliform in excess of applicable regulatory screening criteria and/or typical background concentrations.

None of the analyzed soil samples exceeded the background concentrations of metals for typical California soils as based on the Kearney Foundation of Soil Science March 1996 Background Concentrations of Trace and Major Elements in California Soils Report.

Based on the above information, there does not appear to be a significant concern to human health and/or the environment at this time. Partner recommends no further investigation with respect to the historical area of sludge application at this time.

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TABLES

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Table 1: Summary of Investigation Scope
Eight Parcels Southeast of Ethanac Road and Dawson Road
Menifee, California 92585
Partner Project Number 21-308686.8
August 1, 2022

Composite Sample Identification	Discrete Sample Identification	Matrix Sampled	Sampling Depths* (feet bgs)	Target Analytes
Comp-1	SS-01	Soil	0.5	OCPs, Metals, Fecal Coliform
	SS-02	Soil	0.5	
	SS-03	Soil	0.5	
	SS-04	Soil	**0.5**	
Comp-2	SS-05	Soil	0.5	OCPs, Metals, Fecal Coliform
	SS-06	Soil	0.5	
	SS-07	Soil	0.5	
	SS-08	Soil	**0.5**	
Comp-3	SS-09	Soil	0.5	OCPs, Metals, Fecal Coliform
	SS-10	Soil	0.5	
	SS-11	Soil	**0.5**	
	SS-12	Soil	0.5	
Comp-4	SS-13	Soil	0.5	OCPs, Metals, Fecal Coliform
	SS-14	Soil	0.5	
	SS-15	Soil	**0.5**	
	SS-16	Soil	0.5	
Comp-5	SS-17	Soil	0.5	OCPs, Metals, Fecal Coliform
	SS-18	Soil	0.5	
	SS-19	Soil	0.5	
	SS-20	Soil	0.5	
	SS-21	Soil	0.5	
	SS-22	Soil	**0.5**	
Comp-6	SS-23	Soil	0.5	OCPs, Metals, Fecal Coliform
	SS-24	Soil	0.5	
	SS-25	Soil	**0.5**	
	SS-26	Soil	0.5	
	SS-27	Soil	0.5	
	SS-28	Soil	0.5	
Comp-7	SS-29	Soil	0.5	OCPs, Metals, Fecal Coliform
	SS-30	Soil	0.5	
	SS-31	Soil	0.5	
	SS-32	Soil	0.5	
	SS-33	Soil	**0.5**	
	SS-34	Soil	0.5	
Comp-8	SS-35	Soil	0.5	OCPs, Metals, Fecal Coliform
	SS-36	Soil	**0.5**	
	SS-37	Soil	0.5	
Comp-9	SS-38	Soil	**0.5**	OCPs, Metals, Fecal Coliform
	SS-39	Soil	0.5	
	SS-40	Soil	0.5	
Comp-10	SS-41	Soil	0.5	OCPs, Metals, Fecal Coliform
	SS-42	Soil	0.5	
	SS-43	Soil	0.5	
	SS-44	Soil	**0.5**	
	SS-45	Soil	0.5	
	SS-46	Soil	0.5	

Notes:
*Samples in **bold** analyzed for CAM Metals via United States Environmental Protection Agency (EPA) Method 6010B/7471A and fecal coliform via EPA Method SM9221E. Each composite sample was analyzed for organochlorine pesticides (OCPs) via EPA Method 8081A.
bgs = below ground surface

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Table 2: Soil Sample OCPs Laboratory Results
Eight Parcels Southeast of Ethanac Road and Dawson Road
Menifee, California 92585
Partner Project Number 21-308686.8
August 1, 2022

EPA Method	OCPs via 8081A										
Units	(µg/kg)										
Analyte	Commercial/ Industrial RSL	Comp-1	Comp-2	Comp-3	Comp-4	Comp-5	Comp-6	Comp-7	Comp-8	Comp-9	Comp-10
4,4'-DDE	**9,300**	**62.3**	**38.1**	**20.7**	**48.4**	**97.3**	**15.8**	**119**	**67.2**	**18.4**	**12.9**
Dieldrin	**930**	< 5	< 5	< 5	3.9 J	3.7 J	< 5	**8.6**	4.5 J	4.2 J	< 5
4,4'-DDT	**7,100**	3.7 J	< 5	< 5	4.5 J	3.9 J	< 5	**7.9**	< 5	< 5	< 5
Other OCPs	**Varies**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

EPA = United States Environmental Protection Agency

OCPs = organochlorine pesticides

µg/kg = milligrams per kilogram

RSL = May 2022 Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, May 2022 EPA RSLs were utilized

< = not detected above indicated laboratory Practical Quantitation Limit (PQL)

J = detected below laboratory PQLs

ND = not detected above laboratory PQLs

Values in **bold**

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Table 3: Soil Sample CAM Metals Laboratory Results
Eight Parcels Southeast of Ethanac Road and Dawson Road
Menifee, California 92585
Partner Project Number 21-308686.8
August 1, 2022

Element	Commercial/ Industrial Soil RSL	Background Concentrations*	SS-04	SS-08	SS-11	SS-15	SS-22	SS-25	SS-33	SS-36	SS-38	SS-44
Antimony (Sb)[1]	**470**	**0.21 - 0.99**	< 2	< 2	1.3 J	< 2	< 2	< 2	1.3 J	<2	< 2	1.0 J
Arsenic (As)	**0.36**	**12****	**2.3**	**3.5**	< 1	**1.6**	0.93 J	0.72 J	**1.3**	**5.0**	**4.4**	**2.7**
Barium (Ba)[1]	**220,000**	**299 - 719**	**107**	**70.4**	**466**	**114**	**195**	**156**	**216**	**117**	**125**	**110**
Beryllium (Be)[1]	**230**	**0.76 - 1.8**	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Cadmium (Cd)[1]	**780**	**0.05 - 0.67**	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chromium (Cr)[1]	**6.2**	**0 - 345**	**10.7**	**12.2**	**6.0**	**12.8**	**13.2**	**12.3**	**15.5**	**18.1**	**21.3**	**15.9**
Cobalt (Co)[1]	**350**	**5.7 - 24.1**	**8.2**	**4.4**	**16.4**	**7.6**	**12.3**	**9.6**	**12**	**7.2**	**7.2**	**7.4**
Copper (Cu)[1]	**47,000**	**9.4 - 48**	**14.5**	**16.5**	**24.7**	**31.7**	**33**	**28.9**	**18.1**	**28.7**	**36.8**	**15.5**
Lead (Pb)	**320**	**10.1 - 37.7**	**3.2**	**2.7**	< 2	**7.7**	**2.4**	**4.0**	**2.4**	**10.2**	**13.5**	**6.6**
Mercury (Hg)	**4.4**	**0.05 - 0.47**	< 0.2	< 0.2	< 0.2	< 0.2	0.126 J	< 0.2	< 0.2	0.103 J	< 0.2	< 0.2
Molybdenum (Mo)[1]	**5,800**	**0 - 2.8**	< 2	1.9 J	< 2	**2.0**	**1.6**	1.9 J	1.3 J	1.4 J	1.5 J	1.5 J
Nickel (Ni)	**11,000**	**0 - 137**	**10.3**	**21.7**	**10**	**11.4**	**12.6**	**12.2**	**11.9**	**13.4**	**12.9**	**12.8**
Selenium (Se)[1]	**5,800**	**0 - 0.142**	< 1	1.5 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Silver (Ag)	**5,800**	**0 - 2.23**	1.8 J	**2.3**	**9.4**	**2.7**	**5.8**	**5.1**	**3.6**	1.3 J	< 2	< 2
Thallium (Tl)[1]	**12**	**0.37 - 0.75**	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Vanadium (V)	**5,800**	**59 - 165**	**54.5**	**51**	**101**	**60.2**	**80.6**	**59.9**	**79.2**	**50.5**	**52.9**	**55.6**
Zinc (Zn)[1]	**350,000**	**117 - 181**	**44.3**	**43.7**	**58.9**	**70.6**	**92.8**	**73.2**	**68.2**	**95**	**83.8**	**61.4**

Notes:

EPA = United States Environmental Protection Agency

CAM = California Administrative Manual

mg/kg = milligrams per kilogram

RSL = June 2020 DTSC Regional Screening Levels (RSLs). If DTSC RSLs do not exist, November 2021 United States Environmental Protection Agency (EPA) RSLs were utilized, as denoted by [1]

*From Kearney Foundation of Soil Science March 1996 report *Background Concentrations of Trace and Major Elements in California Soils.* Background concentrations of metals are considered to be within one standard deviation from the mean metal concentrations determined by the study. Concentrations indicated in milligrams per kilogram (mg/kg).

**From Department of Toxic Substance Control (DTSC) March 2008 report *Determination of a Southern California Regional Background Arsenic Concentration in Soil*.

RSL = June 2020 DTSC Regional Screening Levels (RSLs). If DTSC RSLs do not exist, November 2021 United States Environmental Protection Agency (EPA) RSLs were utilized, as denoted by [1].

< = not detected above indicated laboratoryPractical Quantitation Limit (PQL)

[J] = detected below laboratory PQLs

Values in **bold** exceed laboratory PQLs

Highlighted values exceed regulatory guidelines

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FIGURES

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Torrance, California 90501
Project Number: 21-308686.8

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Legend

Subject Property

Site Vicinity Map

Figure	Prepared By	Date
1	J. Harrington	August 2022

Eight Parcels Southeast of Ethanac Road and Dawson Road
Menifee, California 92585

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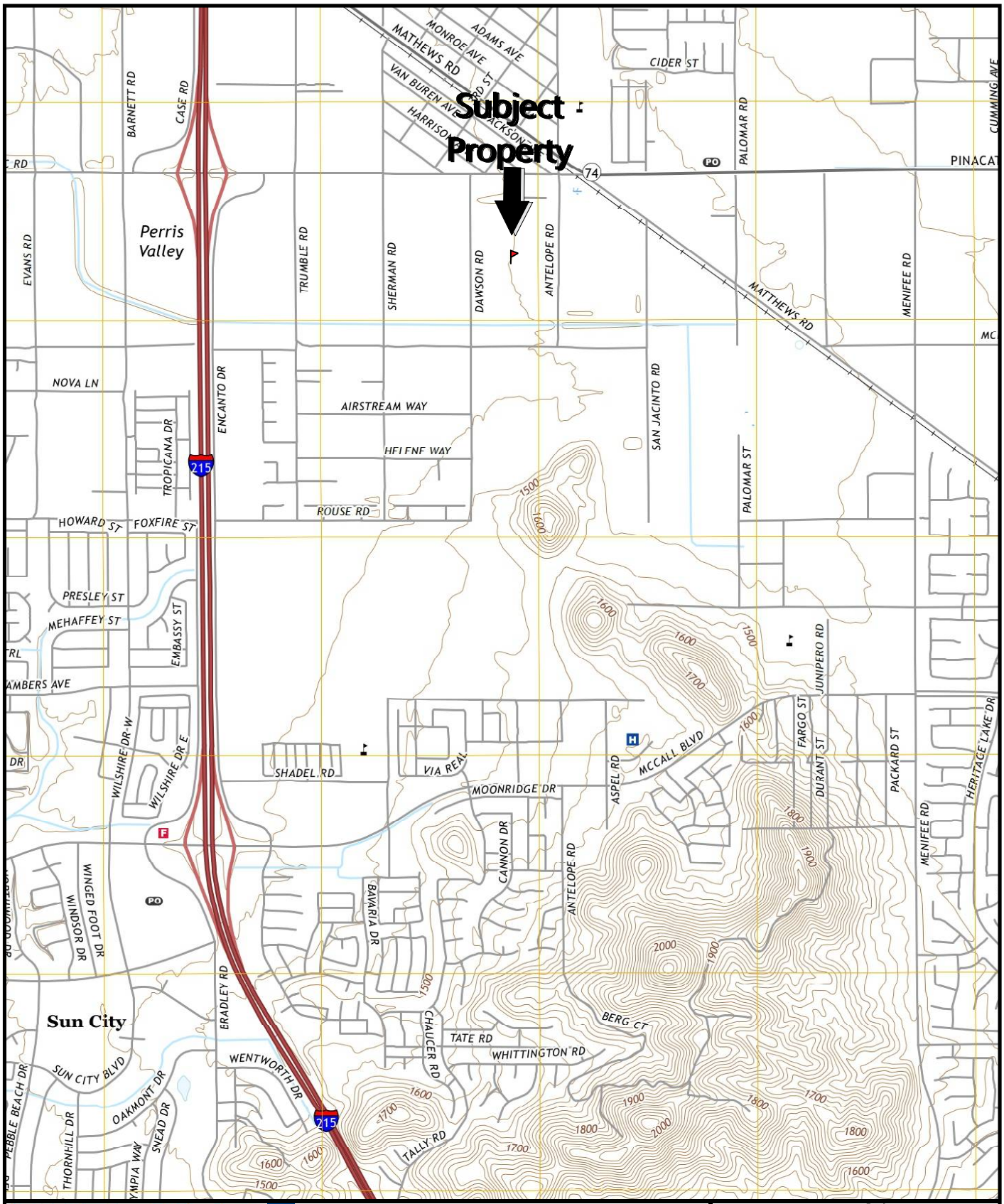

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Torrance, California 90501
Project Number: 21-308686.8

N

USGS *Romoland, California* Quadrangle
Version: 2019 Current as of: 2022

Topographic Map

Figure	Prepared By	Date
2	J. Harrington	August 2022

Eight Parcels Southeast of Ethanac Road and Dawson Road
Menifee, California 92585

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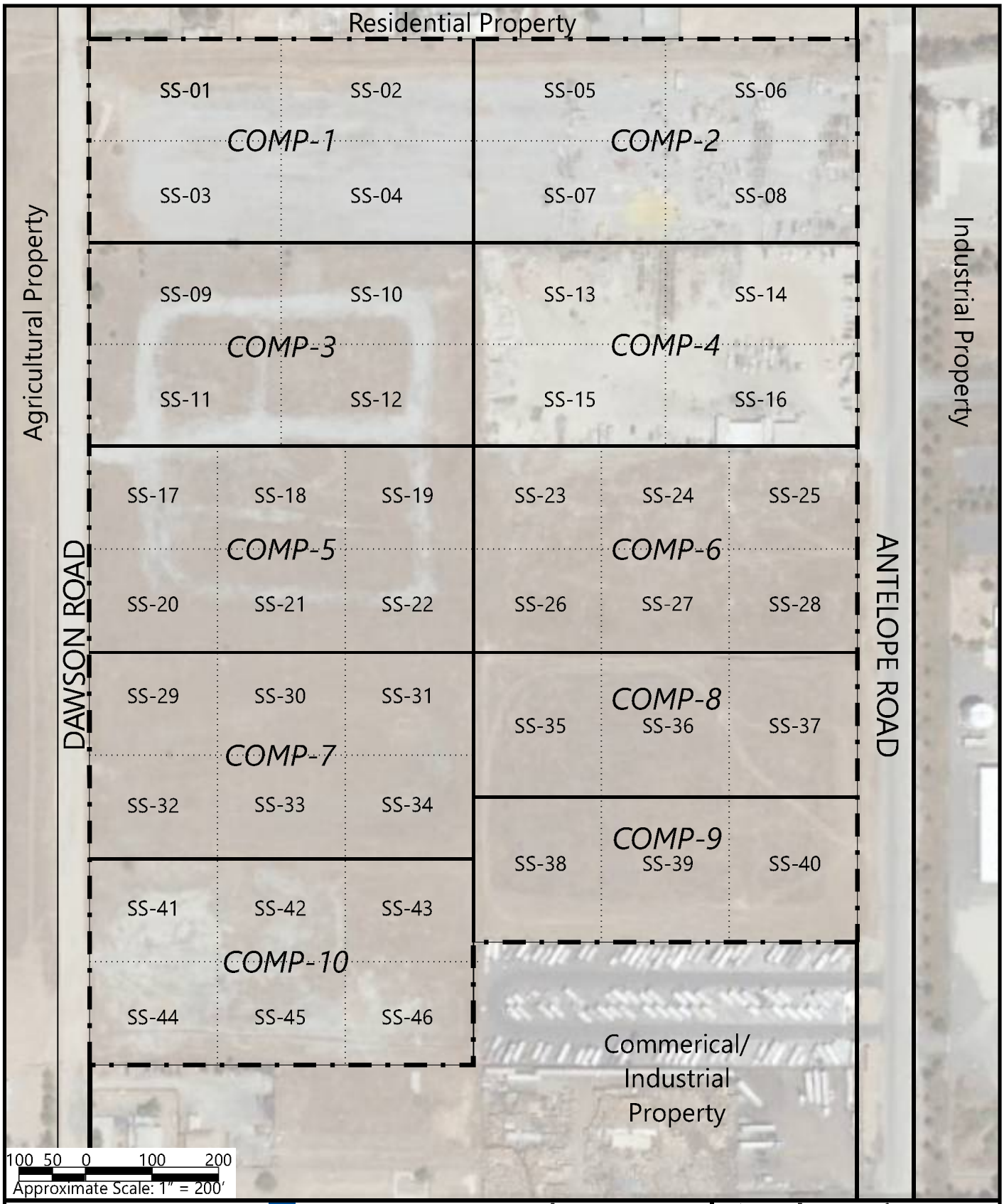

PARTNER
2154 Torrance Boulevard, Suite 200
Torrance, California 90501
Project Number: 21-308686.8

N

Legend

Subject Property

Sample Location Map

Figure	Prepared By	Date
3	J. Harrington	August 2022

Eight Parcels Southeast of Ethanac Road
and Dawson Road
Menifee, California 92585

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APPENDIX A: LABORATORY ANALYTICAL REPORTS

PARTNER

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Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

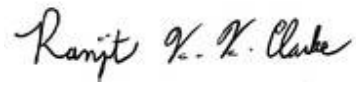
Lab Job Number: 466570
Report Level: II
Report Date: 08/08/2022

Analytical Report *prepared for:*

Lauren Hinch
Partner Engineering & Science
2154 Torrance Blvd.
Suite 200
Torrance, CA 90501

Location: Menifee Assemblage

Authorized for release by:



Ranjit K Clarke, Client Services Manager
(714) 771-990
Ranjit.Clarke@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

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ENTHALPY ANALYTICAL

Sample Summary

Lauren Hinch
Partner Engineering & Science
2154 Torrance Blvd.
Suite 200
Torrance, CA 90501

Lab Job #: 466570
Location: Menifee Assemblage
Date Received: 08/02/22

Sample ID	Lab ID	Collected	Matrix
SS-04	466570-001	08/01/22 11:40	Soil
SS-08	466570-002	08/01/22 11:10	Soil
SS-11	466570-003	08/01/22 14:40	Soil
SS-15	466570-004	08/01/22 11:40	Soil
SS-22	466570-005	08/01/22 14:40	Soil
SS-25	466570-006	08/01/22 12:20	Soil
SS-33	466570-007	08/01/22 14:05	Soil
SS-36	466570-008	08/01/22 12:30	Soil
SS-38	466570-009	08/01/22 12:45	Soil
SS-44	466570-010	08/01/22 13:35	Soil

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ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 740570

Page: 1 of 1

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
		1 Day:		Custom TAT:	

Enthalpy Analytical - Orange

#REF!

#REF!

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: 6.2/5.1 (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Partner Engineering and Science	Name:	Menifee Assemblage
Report To:	Laman Hindi	Number:	21-308686.8
Email:	LHindi@partnereser.com	P.O. #:	
Address:	2154 Torrance Blvd	Address:	8 parcels SE of Ethanac & Dawson Rd
	Torrance CA 90501		
Phone:	(424)247-4031		
Fax:	"	Sampled By:	J. Hamilton

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	VOCs 8260	TPH-cc 8015	Fecal Coliform SM9221	Test Instructions / Comments
1	SS-04	8/1/2022	1140	SOIL	~~Sleeve & 2 VOAs~~ 4oz jars	N/A			✓	
2	SS-08		1110						✓	
3	SS-11		1490						✓	
4	SS-15		1140						✓	
5	SS-22		1440						✓	
6	SS-25		1220						✓	
7	SS-33		1405						✓	
8	SS-36		1230						✓	
9	SS-38		1245						✓	
10	SS-44		1335						✓	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		J. Hamilton	Partner ESI	8/2
1 Received By:		Ranjit Clarke	EA / CMS	08/02/22 9:27
2 Relinquished By:		Ranjit Clarke	EA / CSM	08/02/22 10:07
2 Received By:		B Chan	EA	8/2/22 1007
3 Relinquished By:				
3 Received By:				

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ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: McCampbell Project: 2207208

Date Received: 8/2/22 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 6.2 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 5.1 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✔		
Are sample IDs present?	✔		
Are sampling dates & times present?	✔		
Is a relinquished signature present?	✔		
Are the tests required clearly indicated on the COC?	✔		
Are custody seals present?		✔	
If custody seals are present, were they intact?			✔
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✔
Did all samples arrive intact? If no, indicate in Section 4 below.	✔		
Did all bottle labels agree with COC? (ID, dates and times)	✔		
Were the samples collected in the correct containers for the required tests?	✔		
Are the containers labeled with the correct preservatives?			✔
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✔
Was a sufficient amount of sample submitted for the requested tests?	✔		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 8/2/22

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal

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ENTHALPY ANALYTICAL

Analysis Results for 466570

Lauren Hinch
Partner Engineering & Science
2154 Torrance Blvd.
Suite 200
Torrance, CA 90501

Lab Job #: 466570
Location: Menifee Assemblage
Date Received: 08/02/22

Sample ID: SS-04 **Lab ID: 466570-001** **Collected: 08/01/22 11:40**
Matrix: Soil

466570-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9221E Prep Method: METHOD									
Fecal Coliform	<0.18		MPN/g	0.18	1	294263	08/03/22 11:15	08/05/22 11:23	SMT

Sample ID: SS-08 **Lab ID: 466570-002** **Collected: 08/01/22 11:10**
Matrix: Soil

466570-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9221E Prep Method: METHOD									
Fecal Coliform	<0.18		MPN/g	0.18	1	294263	08/03/22 11:15	08/05/22 11:23	SMT

Sample ID: SS-11 **Lab ID: 466570-003** **Collected: 08/01/22 14:40**
Matrix: Soil

466570-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9221E Prep Method: METHOD									
Fecal Coliform	<0.18		MPN/g	0.18	1	294263	08/03/22 11:15	08/05/22 11:23	SMT

Sample ID: SS-15 **Lab ID: 466570-004** **Collected: 08/01/22 11:40**
Matrix: Soil

466570-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9221E Prep Method: METHOD									
Fecal Coliform	<0.18		MPN/g	0.18	1	294263	08/03/22 11:15	08/05/22 11:23	SMT

Sample ID: SS-22 **Lab ID: 466570-005** **Collected: 08/01/22 14:40**
Matrix: Soil

466570-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9221E Prep Method: METHOD									
Fecal Coliform	<0.18		MPN/g	0.18	1	294263	08/03/22 11:15	08/06/22 12:15	SMT

Results for any subcontracted analyses are not included in this section.

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ENTHALPY ANALYTICAL

Analysis Results for 466570

Sample ID: SS-25	Lab ID: 466570-006	Collected: 08/01/22 12:20
	Matrix: Soil	

466570-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9221E Prep Method: METHOD									
Fecal Coliform	<0.18		MPN/g	0.18	1	294263	08/03/22 11:15	08/05/22 11:23	SMT

Sample ID: SS-33	Lab ID: 466570-007	Collected: 08/01/22 14:05
	Matrix: Soil	

466570-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9221E Prep Method: METHOD									
Fecal Coliform	<0.18		MPN/g	0.18	1	294263	08/03/22 11:15	08/06/22 12:15	SMT

Sample ID: SS-36	Lab ID: 466570-008	Collected: 08/01/22 12:30
	Matrix: Soil	

466570-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9221E Prep Method: METHOD									
Fecal Coliform	<0.18		MPN/g	0.18	1	294263	08/03/22 11:15	08/06/22 12:15	SMT

Sample ID: SS-38	Lab ID: 466570-009	Collected: 08/01/22 12:45
	Matrix: Soil	

466570-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9221E Prep Method: METHOD									
Fecal Coliform	<0.18		MPN/g	0.18	1	294263	08/03/22 11:15	08/06/22 12:15	SMT

Sample ID: SS-44	Lab ID: 466570-010	Collected: 08/01/22 13:35
	Matrix: Soil	

466570-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9221E Prep Method: METHOD									
Fecal Coliform	<0.18		MPN/g	0.18	1	294263	08/03/22 11:15	08/05/22 11:23	SMT

< Value is less than indicated concentration

Results for any subcontracted analyses are not included in this section.

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ALPHA SCIENTIFIC CORPORATION
Environmental Laboratories

08-09-2022

Ms. Lauren Hinch
Partner Engineering & Science
2154 Torrance Boulevard
Torrance, CA 90501

Project: 21-308686.8
Project Site: Meniffe Assemblage
Sample Date: 08-01-2022
Lab Job No.: PA208007

Dear Ms. Hinch:

Enclosed please find the analytical report for the sample(s) received by Alpha Scientific Corporation on 08-01-2022and analyzed by the following EPA methods:

EPA 6010B/7471A for CAM Metals
EPA 8081A (Organochlorine Pesticides)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Alpha Scientific Corporation is a CA ELAP certified laboratory (Certificate Number 3007). Thank you for giving us the opportunity to serve you. Please feel free to call me at (562) 809-8880 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph.D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.

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Client:	Partner Engineering & Science	Lab Job No.:	PA208007
Project:	21-308686.8		
Project Site:	Meniffe Assemblage	Date Sampled:	08-01-2022
Matrix:	Soil	Date Received:	08-01-2022
Digestion Method:	EPA 3050B	Date Digested:	08-05-2022
Batch No.:	0805-MS1	Date Analyzed:	08-05-2022
		Date Reported:	08-09-2022

EPA 6010B/7471A for CAM Metals (TTLC)

Reporting Units: mg/kg (ppm)

Element	EPA Method	Method Blank	PA208007-4 SS-04	PA208007-8 SS-08	PA208007-11 SS-11	PA208007-15 SS-15		**MDL**	**PQL**
Antimony (Sb)	6010B	ND	ND	ND	1.3J	ND		1	2
Arsenic (As)	6010B	ND	2.3	3.5	ND	1.6		0.5	1
Barium (Ba)	6010B	ND	107	70.4	466	114		1	2
Beryllium (Be)	6010B	ND	ND	ND	ND	ND		1	2
Cadmium (Cd)	6010B	ND	ND	ND	ND	ND		1	2
Chromium (Cr)	6010B	ND	10.7	12.2	6.0	12.8		1	2
Cobalt (Co)	6010B	ND	8.2	4.4	16.4	7.6		1	2
Copper (Cu)	6010B	ND	14.5	16.5	24.7	31.7		1	2
Lead (Pb)	6010B	ND	3.2	2.7	ND	7.7		1	2
Molybdenum (Mo)	6010B	ND	ND	1.9J	ND	2.0		1	2
Nickel (Ni)	6010B	ND	10.3	21.7	10.0	11.4		1	2
Selenium (Se)	6010B	ND	ND	1.5J	ND	ND		0.5	1
Silver (Ag)	6010B	ND	1.8J	2.3	9.4	2.7		1	2
Thallium (Tl)	6010B	ND	ND	ND	ND	ND		1	2
Vanadium (V)	6010B	ND	54.5	51.0	101	60.2		1	2
Zinc (Zn)	6010B	ND	44.3	43.7	58.9	70.6		1	2
Mercury (Hg)	7471A	ND	ND	ND	ND	ND		0.1	0.2

MDL: Method Detection Limit;
PQL: Practical Quantitation Limit;
ND: Not Detected (less than MDL);
J: Result is between MDL and PQL.

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Client:	Partner Engineering & Science	Lab Job No.:	PA208007
Project:	21-308686.8		
Project Site:	Meniffe Assemblage	Date Sampled:	08-01-2022
Matrix:	Soil	Date Received:	08-01-2022
Digestion Method:	EPA 3050B	Date Digested:	08-05-2022
Batch No.:	0805-MS1	Date Analyzed:	08-05-2022
		Date Reported:	08-09-2022

EPA 6010B/7471A for CAM Metals (TTLC)

Reporting Units: mg/kg (ppm)

Element	EPA Method	Method Blank	PA208007-22 SS-22	PA208007-25 SS-25	PA208007-33 SS-33	PA208007-36 SS-36		**MDL**	**PQL**
Antimony (Sb)	6010B	ND	ND	ND	1.3J	ND		1	2
Arsenic (As)	6010B	ND	0.93J	0.72J	1.3	5.0		0.5	1
Barium (Ba)	6010B	ND	195	156	216	117		1	2
Beryllium (Be)	6010B	ND	ND	ND	ND	ND		1	2
Cadmium (Cd)	6010B	ND	ND	ND	ND	ND		1	2
Chromium (Cr)	6010B	ND	13.2	12.3	15.5	18.1		1	2
Cobalt (Co)	6010B	ND	12.3	9.6	12.0	7.2		1	2
Copper (Cu)	6010B	ND	33.0	28.9	18.1	28.7		1	2
Lead (Pb)	6010B	ND	2.4	4.0	2.4	10.2		1	2
Molybdenum (Mo)	6010B	ND	1.6	1.9J	1.3J	1.4J		1	2
Nickel (Ni)	6010B	ND	12.6	12.2	11.9	13.4		1	2
Selenium (Se)	6010B	ND	ND	ND	ND	ND		0.5	1
Silver (Ag)	6010B	ND	5.8	5.1	3.6	1.3J		1	2
Thallium (Tl)	6010B	ND	ND	ND	ND	ND		1	2
Vanadium (V)	6010B	ND	80.6	59.9	79.2	50.5		1	2
Zinc (Zn)	6010B	ND	92.8	73.2	68.2	95.0		1	2
Mercury (Hg)	7471A	ND	0.126J	ND	ND	0.103J		0.1	0.2

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Client:	Partner Engineering & Science	Lab Job No.:	PA208007
Project:	21-308686.8		
Project Site:	Meniffe Assemblage	Date Sampled:	08-01-2022
Matrix:	Soil	Date Received:	08-01-2022
Digestion Method:	EPA 3050B	Date Digested:	08-05-2022
Batch No.:	0805-MS1	Date Analyzed:	08-05-2022
		Date Reported:	08-09-2022

EPA 6010B/7471A for CAM Metals (TTLC)

Reporting Units: mg/kg (ppm)

Element	EPA Method	Method Blank	PA208007-38 SS-38	PA208007-44 SS-44				MDL	PQL
Antimony (Sb)	6010B	ND	ND	1.0J				1	2
Arsenic (As)	6010B	ND	4.4	2.7				0.5	1
Barium (Ba)	6010B	ND	125	110				1	2
Beryllium (Be)	6010B	ND	ND	ND				1	2
Cadmium (Cd)	6010B	ND	ND	ND				1	2
Chromium (Cr)	6010B	ND	21.3	15.9				1	2
Cobalt (Co)	6010B	ND	7.2	7.4				1	2
Copper (Cu)	6010B	ND	36.8	15.5				1	2
Lead (Pb)	6010B	ND	13.5	6.6				1	2
Molybdenum (Mo)	6010B	ND	1.5J	1.5J				1	2
Nickel (Ni)	6010B	ND	12.9	12.8				1	2
Selenium (Se)	6010B	ND	ND	ND				0.5	1
Silver (Ag)	6010B	ND	ND	2.3				1	2
Thallium (Tl)	6010B	ND	ND	ND				1	2
Vanadium (V)	6010B	ND	52.9	55.6				1	2
Zinc (Zn)	6010B	ND	83.8	61.4				1	2
Mercury (Hg)	7471A	ND	ND	ND				0.1	0.2

MDL: Method Detection Limit;
PQL: Practical Quantitation Limit;
ND: Not Detected (less than MDL);
J: Result is between MDL and PQL.

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Client:	Partner Engineering & Science	Lab Job No.:	PA208007
Project:	21-308686.8		
Project Site:	Meniffe Assemblage	Date Sampled:	08-01-2022
Matrix:	Soil	Date Received:	08-01-2022
Extraction Method:	EPA 3550B	Date Extracted:	08-03-2022
Batch No.:	AH03-PS1	Date Analyzed:	08-03-2022
		Date Reported:	08-09-2022

EPA 8081A (Organochlorine Pesticides)
Reporting Unit: µg/kg (ppb)

LAB SAMPLE I.D.			MB	PA208007-1,2,3,4	PA208007-5,6,7,8	PA208007-9,10,11,12	PA208007-13,14,15,16	PA208007-17,18,19,20,21,22
CLIENT SAMPLE I.D.				SS-1,2,3,4	SS-5, 6,7, 8	SS-9,10,11,12	SS-13,14, 15,16	SS-17,18, 19,20,21,22
DILUTION FACTOR			1	1	1	1	1	1
COMPOUND	**MDL**	**PQL**						
Alpha-BHC	2	5	ND	ND	ND	ND	ND	ND
Gamma-BHC (Lindane)	2	5	ND	ND	ND	ND	ND	ND
Heptachlor	2	5	ND	ND	ND	ND	ND	ND
Aldrin	2	5	ND	ND	ND	ND	ND	ND
Beta-BHC	2	5	ND	ND	ND	ND	ND	ND
Delta-BHC	2	5	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	2	5	ND	ND	ND	ND	ND	ND
Endosulfan I	2	5	ND	ND	ND	ND	ND	ND
4,4'-DDE	2	5	ND	62.3	38.1	20.7	48.4	97.3
Dieldrin	2	5	ND	ND	ND	ND	3.9J	3.7J
Endrin	2	5	ND	ND	ND	ND	ND	ND
4,4'-DDD	2	5	ND	ND	ND	ND	ND	ND
Endosulfan II	2	5	ND	ND	ND	ND	ND	ND
4,4'-DDT	2	5	ND	3.7J	ND	ND	4.5J	3.9J
Endrin Aldehyde	2	5	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	2	5	ND	ND	ND	ND	ND	ND
Methoxychlor	2	5	ND	ND	ND	ND	ND	ND
Alpha-Chlordane	2	5	ND	ND	ND	ND	ND	ND
Gamma-Chlordane	2	5	ND	ND	ND	ND	ND	ND
Total Chlordane	15	25	ND	ND	ND	ND	ND	ND
Toxaphene	30	100	ND	ND	ND	ND	ND	ND
SURROGATE	**Accept Limit%**		**%RC**	**%RC**	**%RC**	**%RC**	**%RC**	**%RC**
Surrogate Standard	60-140		110	98	100	122	121	110

MDL=Method Detection Limit; PQL=Practical Quantitation Limit; MB=Method Blank;
ND=Not Detected (below DF × MDL); %RC=Percent Recovery.
* = Obtained from a higher dilution analysis.

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Client:	Partner Engineering & Science	Lab Job No.:	PA208007
Project:	21-308686.8		
Project Site:	Meniffe Assemblage	Date Sampled:	08-01-2022
Matrix:	Soil	Date Received:	08-01-2022
Extraction Method:	EPA 3550B	Date Extracted:	08-03-2022
Batch No.:	AH03-PS1	Date Analyzed:	08-03-2022
		Date Reported:	08-09-2022

EPA 8081A (Organochlorine Pesticides)
Reporting Unit: µg/kg (ppb)

LAB SAMPLE I.D.			MB	PA208007-23,24,25,26,27,28	PA208007-29,30,31,32,33,34	PA208007-35,36,37	PA208007-38,39,40	PA208007-41,42,43,44,45,46
CLIENT SAMPLE I.D.				SS-23,24,25,26,27,28	SS-29,30,31,32,33,34	SS-35,36,37	SS-38,39,40	SS-41,42,43,44,45,46
DILUTION FACTOR			1	1	1	1	1	1
COMPOUND	**MDL**	**PQL**						
Alpha-BHC	2	5	ND	ND	ND	ND	ND	ND
Gamma-BHC (Lindane)	2	5	ND	ND	ND	ND	ND	ND
Heptachlor	2	5	ND	ND	ND	ND	ND	ND
Aldrin	2	5	ND	ND	ND	ND	ND	ND
Beta-BHC	2	5	ND	ND	ND	ND	ND	ND
Delta-BHC	2	5	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	2	5	ND	ND	ND	ND	ND	ND
Endosulfan I	2	5	ND	ND	ND	ND	ND	ND
4,4'-DDE	2	5	ND	15.8	119	67.2	18.4	12.9
Dieldrin	2	5	ND	ND	8.6	4.5J	4.2J	ND
Endrin	2	5	ND	ND	ND	ND	ND	ND
4,4'-DDD	2	5	ND	ND	ND	ND	ND	ND
Endosulfan II	2	5	ND	ND	ND	ND	ND	ND
4,4'-DDT	2	5	ND	ND	7.9	ND	ND	ND
Endrin Aldehyde	2	5	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	2	5	ND	ND	ND	ND	ND	ND
Methoxychlor	2	5	ND	ND	ND	ND	ND	ND
Alpha-Chlordane	2	5	ND	ND	ND	ND	ND	ND
Gamma-Chlordane	2	5	ND	ND	ND	ND	ND	ND
Total Chlordane	15	25	ND	ND	ND	ND	ND	ND
Toxaphene	30	100	ND	ND	ND	ND	ND	ND
SURROGATE	**Accept Limit%**		**%RC**	**%RC**	**%RC**	**%RC**	**%RC**	**%RC**
Surrogate Standard	60-140		110	119	112	113	113	114

MDL=Method Detection Limit; PQL=Practical Quantitation Limit; MB=Method Blank;
ND=Not Detected (below DF × MDL); %RC=Percent Recovery.
* = Obtained from a higher dilution analysis.

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08-09-2022

EPA 6010B for CAM Metals (TTLC)
Batch QA/QC Report

Client:	Partner Engineering & Science	Lab Job No.:	PA208007
Project:	21-308686.8		
Matrix:	Soil	Lab Sample I.D.:	PA208007-4
Batch No.:	0805-MS1	Date Analyzed:	08-05-2022

I. MS/MSD Report
Unit: ppm

Analyte	EPA Method	Sample Conc.	Spike Conc.	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Antimony (Sb)	6010B	ND	10	93.9	95.3	1.4	30	70-130
Arsenic (As)	6010B	2.3	10	104.3	102.3	2.0	30	70-130
Barium (Ba)	6010B	107	10	105.0	102.8	2.1	30	70-130
Beryllium (Be)	6010B	ND	10	101.4	97.3	4.2	30	70-130
Cadmium (Cd)	6010B	ND	10	98.1	96.7	1.4	30	70-130
Chromium (Cr)	6010B	10.7	10	101.9	99.8	2.1	30	70-130
Cobalt (Co)	6010B	8.2	10	100.1	98.5	1.6	30	70-130
Copper (Cu)	6010B	14.5	10	116.4	111.6	4.2	30	70-130
Lead (Pb)	6010B	3.2	10	106.9	106.6	0.3	30	70-130
Molybdenum (Mo)	6010B	ND	10	99.9	99.0	0.9	30	70-130
Nickel (Ni)	6010B	10.3	10	100.1	98.2	1.9	30	70-130
Selenium (Se)	6010B	ND	10	83.3	86.3	3.5	30	70-130
Silver (Ag)	6010B	1.8J	10	96.1	104.1	8.0	30	70-130
Thallium (Tl)	6010B	ND	10	100.3	107.9	7.3	30	70-130
Vanadium (V)	6010B	54.5	10	103.0	100.6	2.3	30	70-130
Zinc (Zn)	6010B	44.3	10	108.2	119.6	10.1	30	70-130

ND: Not Detected.

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08-09-2022

EPA 6010B for Title-22 Metals
Batch QA/QC Report

Client:	Partner Engineering & Science	Lab Job No.:	PA208007
Project:	21-308686.8		
Matrix:	Soil	Lab Sample I.D.:	LCS
Batch No.:	0805-MS1	Date Analyzed:	08-05-2022

II. LCS Result
Unit: ppm

Analyte	EPA Method	LCS Value	True Value	Rec.%	Accept. Limit
Antimony (Sb)	6010B	11.26	10	112.6	80-120
Arsenic (As)	6010B	10.80	10	108.0	80-120
Barium (Ba)	6010B	11.95	10	119.5	80-120
Beryllium (Be)	6010B	10.69	10	106.9	80-120
Cadmium (Cd)	6010B	11.38	10	113.8	80-120
Chromium (Cr)	6010B	11.30	10	113.0	80-120
Cobalt (Co)	6010B	10.11	10	101.1	80-120
Copper (Cu)	6010B	10.39	10	103.9	80-120
Lead (Pb)	6010B	11.73	10	117.3	80-120
Molybdenum (Mo)	6010B	11.26	10	112.6	80-120
Nickel (Ni)	6010B	11.57	10	115.7	80-120
Selenium (Se)	6010B	10.51	10	105.1	80-120
Silver (Ag)	6010B	11.81	10	118.1	80-120
Thallium (Tl)	6010B	9.483	10	94.8	80-120
Vanadium (V)	6010B	11.02	10	110.2	80-120
Zinc (Zn)	6010B	11.28	10	112.8	80-120

ND: Not Detected (at the specified limit).

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08-09-2022

EPA 8081A (Pesticides)
Batch QA/QC Report

Client: Partner Engineering & Science
Project: 21-308686.8
Matrix: Soil
Batch No: AH03-PS1

Lab Job No.: PA208007
Lab Sample I.D.: A207079-1
Date Analyzed: 08-03-2022

I. MS/MSD Report
Unit: ppb

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Gamma-BHC	ND	10	10.2	10.7	102.0	107.0	4.8	30	46-127
Heptachlor	ND	10	11.4	11.9	114.0	119.0	4.3	30	31-134
Aldrin	ND	10	10.4	10.9	104.0	109.0	4.7	30	36-132
Dieldrin	ND	20	17.7	18.4	88.5	92.0	3.9	30	21-134
Endrin	ND	20	22.4	23.2	112.0	116.0	3.5	30	42-139
4,4'-DDT	ND	20	18.2	19.5	91.0	97.5	6.9	30	21-134

II. LCS Result
Unit: ppb

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limit
Gamma-BHC	20.7	20	103.5	80-120
Heptachlor	21.5	20	107.5	80-120
Aldrin	21.9	20	109.5	80-120
Dieldrin	19.5	20	97.5	80-120
Endrin	22.5	20	112.5	80-120
4,4'-DDT	19.5	20	97.5	80-120

ND: Not Detected.

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Email: asc90703@gmail.com

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number 21A208007

Client: Partner ESI

Address: 2154 Torrance Blvd, Suite 200 Torrance, CA 90501

Report Attention: Lawen Hirsch | Phone: Thirsch@partnersi.com | Fax | Sampled by: J. Hamylton

Project Name/No.: 21-3086868 | Project Site: Menifee Assemblage

T.A.T. Requested: ☐ 8hrs ☐ 24 hrs ☐ 48hrs ☐ 3 days ☒ Normal

Sample Condition: ☒ Chilled ☒ Intact ☐ Sample Seals

Client Sample ID	Lab Sample ID	Sample Collect Date	Sample Collect Time	Matrix Type	Sample Preserv	No.,type* & size of container	~~TPH-g~~	~~TPH-d~~	~~EPA 8260B(Partial; Oxygenates)~~	~~EPA 8260B (VOCs)~~	~~EPA 8270C (SVOCs)~~	CAM Metals 17	~~EPA 8082 (PCBs)~~	OCP 8081	Remark
SS-01	21A208007-1	8/1/2022	1120	Soil	None	1-4oz									Please email me also: jhamylton@partnersi.com
SS-02	-2		1125												
SS-03	-3		1130												
SS-04	-4		1140									X			
SS-05	-5		1150												
SS-06	-6		1200												
SS-07	-7		1100												
SS-08	-8		1110									X			
SS-09	-9		1130												
SS-10	-10		~~1135~~												
SS-11	-11		1140									X			
SS-12	-12		1145												
SS-13	-13		1120												
SS-14	-14		1130												
SS-15	-15		1140									X			
SS-16	-16		1023												
SS-17	-17		1425												
SS-18	-18		1430												

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	Partner	8/1	18:15	[signature]	ASC	8/1/22	18:15
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: V=VOA vial, A=Air Bag, P=Plastic bottle, G=Glass bottle, M=metal Tube

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ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number 17A0807

Client: Partner ESI

Address: 2154 Torrance Blvd Ste 200, Torrance, CA 90501

Report Attention | Phone | Fax: See Pg. 1 | Sampled by

Project Name/No. | Project Site

Analyses Requested

T.A.T. Requested: 8hrs ☐ 24 hrs ☐ 48hrs ☐ 3 days ☐ Normal ☒

Sample Condition: ☒ Chilled ☒ Intact ☐ Sample Seals

Client Sample ID	Lab Sample ID	Sample Collect Date	Sample Collect Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-g	TPH-d	EPA 8260B(BTEX, Oxygenates)	EPA 8260B (VOCs)	EPA 8270C (SVOCS)	CAM Metals	EPA 8082 (PCBs)	Remark
SS-19	-19	8/1	1435	Soil	None	4-oz jar								
SS-20	-20		1450											
SS-21	-21		1444											
SS-22	-22		1440									X		
SS-23	-23		1210											
SS-24	-24		1215											
SS-25	-25		1220									X		
SS-26	-26		1225											
SS-27	-27		1230											
SS-28	-28		1239											
SS-29	-29		1345											
SS-30	-30		1350											
SS-31	-31		1355											
SS-32	-32		1400											
SS-33	-33		1405									X		
SS-34	-34		~~1432~~ 1418											
SS-35	-35		1225											
SS-36	-36	↓	1230	↓	↓	↓						X		

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	Partner	8/1	18:15	[signature]	ASC	8/1/17	18:15
[signature]	Company	Date	Time	Received by	Company	Date	Time

Container types: V=VOA vial, A=Air Bag, P=Plastic bottle, G=Glass bottle, M=metal Tube

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ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number 220807

Client: Partner ESI

Address: 2154 Torrance Blvd, Suite 200, Torrance, CA 90501

Report Attention | Phone | Fax: See Pg. 1 | Sampled by

Project Name/No. | Project Site

T.A.T. Requested: 8hrs ☐ 24 hrs ☐ 48hrs ☐ 3 days ☐ Normal ☒

Sample Condition: Chilled ☒ Intact ☒ Sample Seals ☐

Client Sample ID	Lab Sample ID	Sample Collect Date	Sample Collect Time	Matrix Type	Sample Preserv	No.,type* & size of container	~~TPH-g~~	~~TPH-d~~	~~EPA 8260B (MTBE, Oxygenates)~~	~~EPA 8260B (VOCs)~~	~~EPA 8270C (SVOCs)~~	CAM Metals	~~EPA 8082 (PCBs)~~	Remark
SS-37	-37	8/1	1225	Soil	None	4oz jar								
SS-38	-38		1245									X		
SS-39	-39		1240											
SS-40	-40		1250											
SS-41	-41		1305											
SS-42	-42		1310											
SS-43	-43		1315											
SS-44	-44		1320									X		
SS-45	-45		1335											
SS-46	-46		1330											

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	Partner	8/1/22	18:15	[signature]	[signature]	8/1/22	18:15
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: V=VOA vial, A=Air Bag, P=Plastic bottle, G=Glass bottle, M=metal Tube

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Phone: (562) 809-8880
Email: asc90703@gmail.com

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number 17A2087

Client: Partner ESI

Address: 2154 Torrance Blvd, Torrance, CA 90501

Report Attention | Phone | Fax | Sampled by

Project Name/No. | Project Site

Analyses Requested

T.A.T. Requested: 8hrs ☐ 24 hrs ☐ 48hrs ☐ 3 days ☐ Normal ☒

Sample Condition: Chilled ☒ Intact ☒ Sample Seals ☐

Client Sample ID	Lab Sample ID	Sample Collect Date	Sample Collect Time	Matrix Type	Sample Preserv	No.,type* & size of container	~~TPH-g~~	~~TPH-d~~	~~EPA 8260B (BTEX, Oxygenates)~~	~~EPA 8260B (VOCs)~~	~~EPA 8270C (SVOCs)~~	~~CAM Metals~~	~~EPA 8082 (PCBs)~~	Ocl 8091				Remark
COMP-1		N/A	SS-1, SS-2, SS-3, SS-4											X				
COMP-2			SS-05, SS-06, SS-07, SS-08											X				
COMP-3			SS-09, SS-10, SS-11, SS-12											X				
COMP-4			SS-13, SS-14, SS-15, SS-16											X				
COMP-5			SS-17, SS-18, SS-19, SS-20, SS-21, SS-22											X				
COMP-6			SS-23, SS-24, SS-25, SS-26, SS-27, SS-28											X				
COMP-7			SS-29, SS-30, SS-31, SS-32, SS-33, SS-34											X				
COMP-8			SS-35, SS-36, SS-37											X				
COMP-9			SS-38, SS-39, SS-40											X				
COMP-10			SS-41, SS-42, SS-43, SS-44, SS-45, SS-46											X				

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
		8/1					
Relinquished by	Company	Date	Time	Received by	Company	Date	Time
					ASC	8/1/17	1815

Container types: V=VOA vial, A=Air Bag, P=Plastic bottle, G=Glass bottle, M=metal Tube

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Alpha Scientific Corporation
Sample Acceptance Checklist

Section 1

Client: Partner Project: 21308686.8 Lab Job# PA208307

Date Received: 8/01/2022

Sample(s) received in cooler(s)? Yes ✓ No____ (skip to Section 2)

Cooler(s) packed with: Ice____ Ice Packs ✓ Packing Material____

Cooler Temperature (°C) : #1: 4 #2:____ #3:____ #4:____ #5____

(Acceptable range is 0°C to 6°C or arriving on ice for samples received on the same day as collected.)

(Ambient Temperature for vapor or air samples is acceptable).

If sample(s) received outside acceptable range, Project Manager contacted by(Personnel Initial):____

Section 2	YES	NO	N/A
Was a COC received?	✓		
Were client sample IDs present?	✓		
Were sample(s) collection dates present?	✓		
Was the COC signed?	✓		
Were tests clearly indicated?	✓		
Did all samples arrive intact? If no, indicate below.	✓		
Did all container labels agree with COC?	✓		
Were correct containers used for the tests required?	✓		
Was there sufficient sample amount for requested tests?	✓		
Were the samples correctly preserved?	✓		
Was there headspace in VOA vials?			✓
Were Custody seals present?		✓	
If yes-were they intact?			✓

Section 3

Explanations/Comments:____

Section 4

Was the Project Manager notified of anomalies? Yes____ No____ N/A ✓

Via Phone: By: ____ Date/Time ____

By Email: Sent to:____

Project Manager's response:____

Completed by: RK Date: 8/01/2022

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Email: asc90703@gmail.com
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Appendix H: Preliminary Water Quality Management Plan and Preliminary Hydrology Report

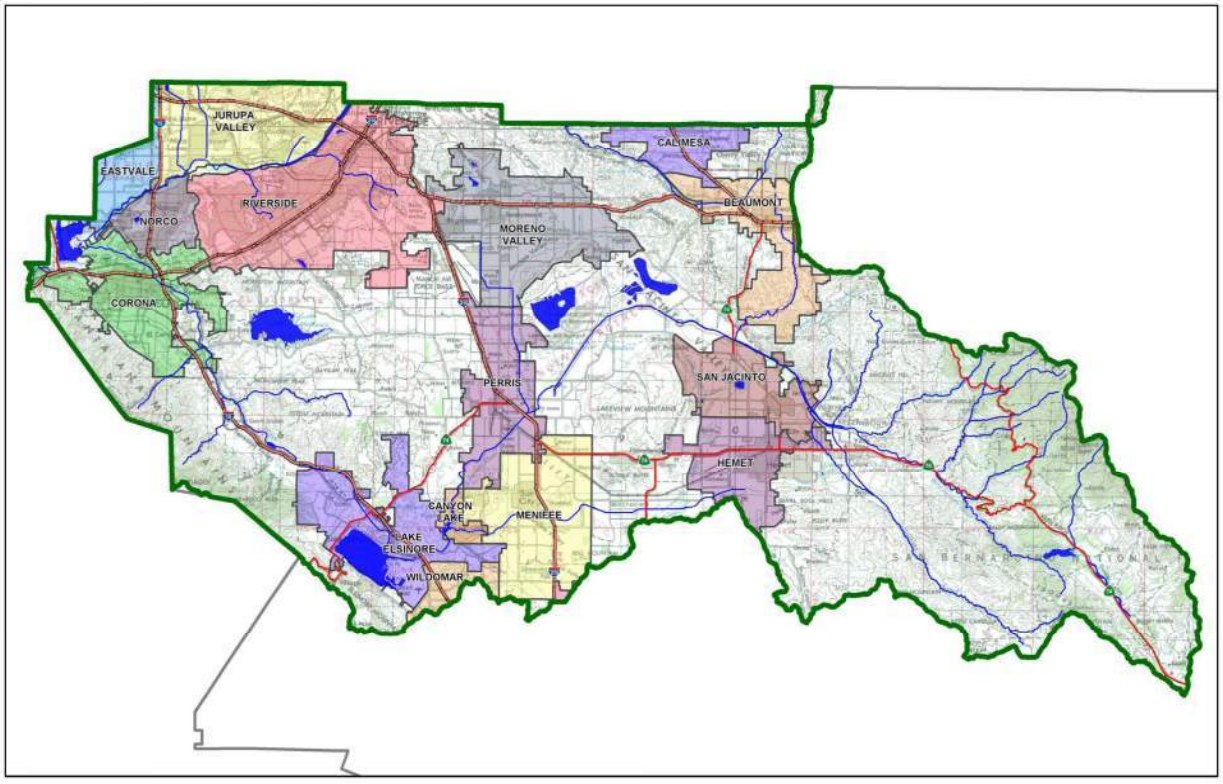
Project Specific Water Quality Management Plan

*A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County*

Project Title: Core 5 - Ethanac Business Park

Development No: TBD

Design Review/Case No: TBD



☒ **Preliminary**
☐ **Final**

Original Date Prepared: 08/25/2023

Revision Date(s):

Prepared for Compliance with
Regional Board Order No. **R8-2010-0033**
Template revised June 30, 2016

Contact Information:

Prepared for:
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Prepared by:
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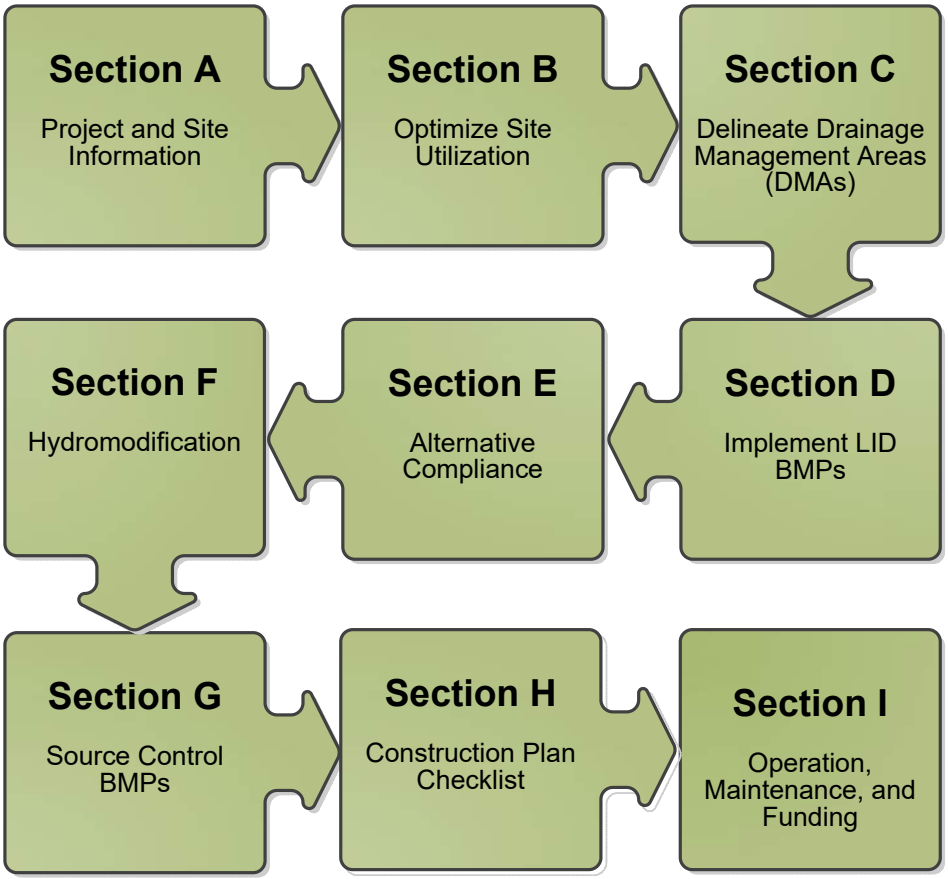
3990 Concours, Suite 330
Ontario, CA 91764
909-941-7799

A Brief Introduction

This Project-Specific WQMP Template for the **Santa Ana Region** has been prepared to help guide you in documenting compliance for your project. Because this document has been designed to specifically document compliance, you will need to utilize the WQMP Guidance Document as your "how-to" manual to help guide you through this process. Both the Template and Guidance Document go hand-in-hand, and will help facilitate a well-prepared Project-Specific WQMP. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.



OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for Core 5 Industrial Partners by Huitt-Zollars, inc for the Core 5 - Ethanac Business Park project (P22-0000X).

This WQMP is intended to comply with the requirements of City of Menifee for APN 331-110-023, 331-110-038, 331-110-039 which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under City of Perris Water Quality Ordinance 1194 (Municipal Code Section 14.22).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature	Date
Jon Kelly	Vice President
Owner's Printed Name	Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033** and any subsequent amendments thereto."

Preparer's Signature	Date
Johnny Murad, PE	Vice President/Project Manager
Preparer's Printed Name	Preparer's Title/Position

Preparer's Licensure:

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Section A: Project and Site Information

PROJECT INFORMATION	
Type of Project:	Industrial Warehouse w/ Truck Docks and Auto Parking
Planning Area:	499,729 SF
Community Name:	City of Menifee
Development Name:	Core 5 - Ethanac Business Park

PROJECT LOCATION
Latitude & Longitude (DMS): 33°44'22.0"N, 117°10'53.7"W
Project Watershed and Sub-Watershed: Santa Ana Watershed, San Jacinto Sub-Watershed
Gross Acres: 11.47
APN(s): 331-110-023, 331-110-038, 331-110-039
Map Book and Page No.: Thomas Brothers Page 747

PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Warehouse Industrial
Proposed or Potential SIC Code(s)	4225
Area of Impervious Project Footprint (SF)	454,355
Total Area of proposed Impervious Surfaces within the Project Footprint (SF)/or Replacement	454,355
Does the project consist of offsite road improvements?	☒ Y ☐ N
Does the project propose to construct unpaved roads?	☐ Y ☒ N
Is the project part of a larger common plan of development (phased project)?	☐ Y ☒ N

EXISTING SITE CHARACTERISTICS	
Total area of existing Impervious Surfaces within the Project limits Footprint (SF)	0
Is the project located within any MSHCP Criteria Cell?	☐ Y ☒ N
If so, identify the Cell number:	N/A
Are there any natural hydrologic features on the project site?	☐ Y ☒ N
Is a Geotechnical Report attached?	☒ Y ☐ N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	N/A
What is the Water Quality Design Storm Depth for the project?	0.62”

The proposed project is located between Trumble Road and Sherman Road, below Ethanac Road in the unincorporated area of Riverside County, CA. The site is currently mostly vacant and covered with open brush. The proposed project will consist of an industrial warehouse building totaling 252,600+/- SF on approximately 11.47 acres. The site will also allow car parking, drive aisles, truck docks and a truck court. A specific business use is not known at this time, but outdoor storage will not be allowed.

For the onsite water quality treatment, the development will have one (1) drainage area including 3 DMA’s, 1A, 2A, and 3A and the storm water from the DMA’s will be conveyed to the underground ADS Stormtech MC-7200 detention chambers located in the west side of the project site through 2 underground storm drain pipes. The underground ADS Stormtech MC-7200 detention chambers have been sized to detain the volume required for HCOC mitigation. The runoff from the site up to the 2-year 24-hour storm will be further treated by a Contech Modular Wetland before discharging to an existing line in Trumble Road. Flows greater than the 2-year 24-hour storm will top a weir and discharge directly the existing line in Trumble Road.

The site landscaping areas will be irrigated with recycled water and “harvest and use” is not feasible for this development. New trash enclosures will be installed at the site.

A.1 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the local vicinity and existing site. In addition, include all grading, drainage, landscape/plant palette and other pertinent construction plans in Appendix 2. At a **minimum**, your WQMP Site Plan should include the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling
- BMP Locations (Lat/Long)

Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Co-Permittee plan reviewer must be able to easily analyze your project utilizing this template and its associated site plans and maps.

A.2 Identify Receiving Waters

Using Table A.1 below, list in order of upstream to downstream, the receiving waters that the project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated beneficial uses, and proximity, if any, to a RARE beneficial use. Include a map of the receiving waters in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
San Jacinto River Reach 3, HU#802.11	NONE	AGR, GWR, REC1, REC2, WARM, WILD	Not designated as RARE
Canyon Lake (Railroad Canyon Reservoir), HU#802.11, 802.12	Nutrients, Pathogens	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not designated as RARE
San Jacinto River Reach 1, HU#802.32,802.31	NONE	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not designated as RARE
Lake Elsinore	DDT, NUTRIENTS, LOW DO, PCBs, TOXICITY	MUN, REC1, REC2, WARM, WILD	Not designated as RARE

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	☐ Y	☒ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☐ Y	☒ N
US Army Corps of Engineers, CWA Section 404 Permit	☐ Y	☒ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N
Statewide Construction General Permit Coverage	☒ Y	☐ N
Statewide Industrial General Permit Coverage	☒ Y	☐ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
Other *(please list in the space below as required)* County of Riverside Building and Grading Permits Riverside County FCD – Connection Permit to public storm drain in Harley Knox Blvd	☒ Y	☐ N

If yes is answered to any of the questions above, the Co-Permittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, **constraints** might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. **Opportunities** might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your LID design and explain your design decisions to others.

The 2010 Santa Ana MS4 Permit further requires that LID Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. Therefore, it is important that your narrative identify and justify if there are any constraints that would prevent the use of those categories of LID BMPs. Similarly, you should also note opportunities that exist which will be utilized during project design. Upon completion of identifying Constraints and Opportunities, include these on your WQMP Site plan in Appendix 1.

Consideration of "highest and best use" of the discharge should also be considered. For example, Lake Elsinore is evaporating faster than runoff from natural precipitation can recharge it. Requiring infiltration of 85% of runoff events for projects tributary to Lake Elsinore would only exacerbate current water quality problems associated with Pollutant concentration due to lake water evaporation. In cases where rainfall events have low potential to recharge Lake Elsinore (i.e. no hydraulic connection between groundwater to Lake Elsinore, or other factors), requiring infiltration of Urban Runoff from projects is counterproductive to the overall watershed goals. Project proponents, in these cases, would be allowed to discharge Urban Runoff, provided they used equally effective filtration-based BMPs.

Site Constraint:

Base on the site specific infiltration tests and report prepared by Southern California Geotechnical, Inc, dated June 18, 2021 (see Appendix 3). The site soils have very poor infiltration characteristics and the use of infiltration facilities is not recommended.

Solution:

The site drainage design has incorporated a bio-retention basin located on the west side of the project site. All site drainage will be conveyed to the bio-retention area where the runoff will be allowed to pass through a filter media, stone section, and through perforated a pipe network beneath the basin footprint which will ultimately convey the runoff out to the proposed public storm drain system located Dawson Road.

Site Optimization

The following questions are based upon Section 3.2 of the WQMP Guidance Document. Review of the WQMP Guidance Document will help you determine how best to optimize your site and subsequently identify opportunities and/or constraints, and document compliance.

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

Yes. The site mimics the existing topography by draining from northeast to southwest.

Did you identify and protect existing vegetation? If so, how? If not, why?

No, existing vegetation was not protected within the developed site. Currently the site is vacant and covered with open brush. The developed condition will utilize drought tolerant plants within the landscaped areas to maximize water conservation.

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

Yes. Natural infiltration capacity was identified by the soil and infiltration report, however it is below the minimum rate and is not expected to be feasible on this project site as a BMP type.

Did you identify and minimize impervious area? If so, how? If not, why?

No. However, the site maintains the minimum amount of landscape required per code.

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

No, runoff from impervious areas is not able to drain into pervious areas. Onsite storm drain systems and surface flow will convey the runoff to the basin on the west side of the project site, and the basin will treat the runoff before allowing it to exit the project site.

Section C: Delineate Drainage Management Areas (DMAs)

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1][2]	Area (Sq. Ft.)	DMA Type
DMA 1A	Landscape	50,415	D
DMA 2A	Roofs	252,576	D
DMA 3A	Concrete	196,738	D

[1]*Reference Table 2-1 in the WQMP Guidance Document to populate this column*
[2]*If multi-surface provide back-up*

Table C.2 Type 'A', Self-Treating Areas (Included with mixed DMA1 above)

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
N/A	N/A	N/A	N/A

Table C.3 Type 'B', Self-Retaining Areas (N/A, included with mixed DMA1)

Self-Retaining Area				**Type 'C' DMAs that are draining to the Self-Retaining Area**		
DMA Name/ ID	Post-project surface type	Area (square feet) [A]	Storm Depth (inches) [B]	DMA Name / ID	[C] from Table C.4 = [C]	Required Retention Depth (inches) [D]
N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas (N/A)

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet)	Post-project surface type	Impervious fraction	Product	DMA name /ID	Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]		[D]	[C]/[D]
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
DMA 1A	Modular Wetlands System
DMA 2A	Modular Wetlands System
DMA 3A	Modular Wetlands System

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? ☐ Y ☒ N

If yes has been checked, Infiltration BMPs shall not be used for the site; proceed to section D.3

If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream 'Highest and Best Use' feature.

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Copermittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☒ N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

Table D.1 Infiltration Feasibility

Does the project site…	YES	NO
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
…have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
…have measured in-situ infiltration rates of less than 1.6 inches / hour?	X	
1A	1A, 2A, 3A	
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
…geotechnical report identify other site-specific factors that would preclude effective and safe infiltration?		X
Describe here:		

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

D.2 Harvest and Use Assessment

Please check what applies*:*

☒ Reclaimed water will be used for the non-potable water demands for the project.

☐Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).

☐The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If none of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: N/A

Type of Landscaping (Conservation Design or Active Turf): Conservation Design

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: N/A

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor: .84 ac/ac

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area : N/A

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)
N/A	N/A

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shut downs or other lapses in occupancy:

Projected Number of Daily Toilet Users: N/A

Project Type: industrial

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: N/A

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-2 in Chapter 2 to determine the minimum number or toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: N/A

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users: N/A

Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required Toilet Users (Step 4)	Projected number of toilet users (Step 1)
N/A	N/A

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: N/A

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: N/A

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-4 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-4: N/A

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: N/A

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the projected average daily use (Step 1) to the minimum required non-potable use (Step 4).

Minimum required non-potable use (Step 4)	**Projected average daily use (Step 1)**
N/A	N/A

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment per Section 3.4.2 of the WQMP Guidance Document.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

☒ LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
DMA 1A	☐	☐	☐	☒	☐
DMA 2A	☐	☐	☐	☒	☐
DMA 3A	☐	☐	☐	☒	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

For those DMAs where LID BMPs are not feasible, provide a brief narrative below summarizing why they are not feasible, include your technical infeasibility criteria in Appendix 5, and proceed to Section E below to document Alternative Compliance measures for those DMAs. Recall that each proposed DMA must pass through the LID BMP hierarchy before alternative compliance measures may be considered.

Base on the information provided in Section D, bio-retention LID BMP will be utilized for the entire site. See Appendix 1 Post-Construction BMP Site Plan for bio-retention basin detail.

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First**,** calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second**,** design the LID BMP to meet the required V_{BMP} using a method approved by the Copermittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Copermittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

Table D.3 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Underground Chambers*		
	[A]		[B]	[C]	[A] x [C]			
DMA 1A	*50,415*	*Landscape*	*0.1*	*0.11*	*5,545.7*	*Design Storm Depth (in)*	*Design Capture Volume,* V_{BMP} *(cubic feet)*	*Proposed Volume on Plans (cubic feet)*
DMA 2A	*252,576*	*Roofs*	*1.0*	*0.89*	*224,792.6*			
DMA 3A	*196,738*	*Concrete*	*1.0*	*0.89*	*175,096.8*			
	$A_T = \Sigma[A]$ 499,729				$\Sigma=$ [D] 405,435.1	[E] 0.62	[F] $= \frac{[D]x[E]}{12}$ 20,947	[G] 36,190

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document

[E] is obtained from Exhibit A in the WQMP Guidance Document

[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Copermittee). Check one of the following Boxes:

☒ LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- *Or* -

☐ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
☐ Detached Residential Development	P	N	P	P	N	P	P	P
☐ Attached Residential Development	P	N	P	P	N	P	P	P[(2)]
☒ Commercial/Industrial Development	P[(3)]	P	P[(1)]	P[(1)]	P[(5)]	P[(1)]	P	P
☐ Automotive Repair Shops	N	P	N	N	P[(4, 5)]	N	P	P
☐ Restaurants (>5,000 ft^2)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft^2)	P	N	P	P	N	P	P	P
☐ Parking Lots (>5,000 ft^2)	P[(6)]	P	P[(1)]	P[(1)]	P[(4)]	P[(1)]	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	☒	☒	☒	☒	☒	☒	☒	☒

P = Potential

N = Not Potential

(1) A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

(2) A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

(3) A potential Pollutant is land use involving animal waste

(4) Specifically petroleum hydrocarbons

(5) Specifically solvents

(6) Bacterial indicators are routinely detected in pavement runoff

E.2 Stormwater Credits (N/A)

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

Table E.2 Water Quality Credits

Qualifying Project Categories	Credit Percentage[2]
N/A	N/A
Total Credit Percentage[1]	

[1]*Cannot Exceed 50%*
[2]*Obtain corresponding data from Table 3-8 in the WQMP Guidance Document*

E.3 Sizing Criteria (N/A)

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.3 Treatment Control BMP Sizing

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	***Modular Wetlands System 1***		
DMA A-1	[A]		[B]	[C]	[A] x [C]			
DMA 1A	*50,415*	Landscape	0.1	0.11	*5,545.7*	*Design Storm Depth (in)*	*Design Treatment Flow Q_{BMP} (cubic feet/sec)*	*Proposed Volume or Flow on Plans (cubic feet or cfs)*
DMA 2A	*252,576*	Roofs	1	0.89	*224,792.6*			
DMA 3A	*196,738*	Concrete	1	0.89	*175,096.8*			
	$A_T = \Sigma[A]$ 499,729				$\Sigma = [D]$ 405,435.1	[E] 0.2	$[F] = \frac{[D]x[E]}{43,560}$ 1.89	[G] **2.0**

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document
[E] is for Flow-Based Treatment Control BMPs [E] = .2, for Volume-Based Control Treatment BMPs, [E] obtained from Exhibit A in the WQMP Guidance Document
[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12
[H] is from the Total Credit Percentage as Calculated from Table E.2 above
[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High**: equal to or greater than 80% removal efficiency
- **Medium**: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]
N/A	N/A	N/A

[1] Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.
[2] Cross Reference Table E.1 above to populate this column.
[3] As documented in a Co-Permittee Approved Study and provided in Appendix 6.

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Copermittee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	**Post-condition**	**% Difference**
Time of Concentration	N/A	N/A	N/A
Volume (Cubic Feet)	N/A	N/A	N/A

[1] Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Susceptibility Maps.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

The 2-year 24-hour storm has been routed down below the existing flow rates. See Appendix 7 for applicable calculations.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

1. ***Identify Pollutant Sources*:** Review Column 1 in the Pollutant Sources/Source Control Checklist. Check off the potential sources of Pollutants that apply to your site.

2. ***Note Locations on Project-Specific WQMP Exhibit*:** Note the corresponding requirements listed in Column 2 of the Pollutant Sources/Source Control Checklist. Show the location of each Pollutant source and each permanent Source Control BMP in your Project-Specific WQMP Exhibit located in Appendix 1.

3. ***Prepare a Table and Narrative*:** Check off the corresponding requirements listed in Column 3 in the Pollutant Sources/Source Control Checklist. In the left column of Table G.1 below, list each potential source of runoff Pollutants on your site (from those that you checked in the Pollutant Sources/Source Control Checklist). In the middle column, list the corresponding permanent, Structural Source Control BMPs (from Columns 2 and 3 of the Pollutant Sources/Source Control Checklist) used to prevent Pollutants from entering runoff. **Add additional narrative** in this column that explains any special features, materials or methods of construction that will be used to implement these permanent, Structural Source Control BMPs.

4. ***Identify Operational Source Control BMPs:*** To complete your table, refer once again to the Pollutant Sources/Source Control Checklist. List in the right column of your table the Operational BMPs that should be implemented as long as the anticipated activities continue at the site. Copermittee stormwater ordinances require that applicable Source Control BMPs be implemented; the same BMPs may also be required as a condition of a use permit or other revocable Discretionary Approval for use of the site.

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural /Non-Structural Source Control BMPs	Operational Source Control BMPs
On-Site Storm Drain Inlet	Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.	• Maintain and periodically repaint or replace inlet markings. • Provide stormwater pollution prevention information to new site owners, lessees, or operators. • See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com • Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."

Loading Docks	The project site will have truck docks which shown on the Post-Construction BMP Site Plan. The truck docks shall be inspected on a weekly basis to help ensure that any trash and debris are collected prior to being washed into the underground storm drain system. All storm water runoff from the loading dock areas will be discharged into infiltration basins and/or underground infiltration chambers prior to conveyance to the public storm drain system. Documentation of such inspection/maintenance shall be kept by the owner in perpetuity.	• Move loaded and unloaded items indoors as soon as possible. See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
Fire Sprinkler Test Water	Underground fire protection service and fire sprinklers test will be provided per the uniform fire code and the requirements of the County of Riverside	• Provide a means to drain fire sprinkler test water to the sanitary sewer.
Plazas, sidewalks, and parking lots.	Documentation of such sweeping shall be kept by the owner in perpetuity. Frequency of sweeping shall be adjusted as needed to maintain a clean site.	• Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect wash water containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.
Refuse Trash Storage Areas	Trash container storage areas shall be paved with an impervious surface designed not to allow run-on from adjoining areas. They shall be designed to divert drainage from adjoining roofs and pavements from the surrounding area, and screened or walled to prevent off-site transport of trash. Trash dumpsters (containers) shall be leak proof and have attached covers and lids. Trash enclosures shall be roofed per City standards and the details on the WQMP exhibit in Appendix 1. Trash compactors shall be roofed and set on a concrete pad per City standards. The pad shall be a minimum of one foot larger all around than the trash compactor and sloped to drain to a sanitary sewer line. Connection of trash area drains to the MS4 is prohibited. See CASQA SD-32 BMP fact sheet in Appendix 10 for additional information. Signs shall be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.	Adequate number of receptacles shall be provided. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available onsite. See fact sheet SC-34 "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbook at www.cabmphandbooks.com and in Appendix 10.

Section H: Construction Plan Checklist

"This section will be completed and addressed at the time of the final WQMP submittal"

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)	BMP Location (Lat/Long)

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Section I: Operation, Maintenance and Funding

The Copermittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Copermittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance. Include a brief description of typical landscape maintenance for these areas.

Your local Co-Permittee will also require that you prepare and submit a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a Stormwater BMP Operation and Maintenance Plan are in Chapter 5 of the WQMP Guidance Document.

Maintenance Mechanism:

BMP	Responsible Party(s)	Inspection/Maintenance Activities Required	Minimum Frequency of Activities
Landscape and Irrigation	Owner	See CASQA BMP Fact Sheet SD-10 in Appendix 10 -Site landscaping design shall be implemented in accordance with the requirements of the site specific WQMP and local agency requirements. -Site landscaping maintenance shall begin immediately after it has been planted. -Maintenance of landscaping shall occur on a weekly basis and adjusted accordingly based on current conditions and seasonal needs. -Inspection of irrigation system shall be provided on a bi-weekly basis to ensure proper function of the irrigation system, no significant overspray is occurring. -Malfunctioning systems shall be repaired or replaced immediately. -Inspect plant health on a monthly basis. Repair or replace unhealthy plants as needed. -Inspect side slopes of basins and sloped areas on a bi-weekly basis and repair as needed. Re-plant and apply erosion protection to those areas to help prevent erosion in the future. -Landscape clippings shall be swept and picked up immediately to prevent it from entering the storm drain system or adjacent sedimentation basins and filtration basins. Dispose of landscape clippings in a legal manner	Weekly
MS4 Stenciling and Signage	Owner	See CASQA BMP Fact Sheet SD-13 in Appendix 10 -MS4 Stenciling and signage shall be placed during construction and inspection and maintenance shall begin upon completion of construction. -Inspect catch basin stenciling on a bi-monthly basis. Replace any damaged, missing or faded stencils in a timely manner.	Bi-monthly
Common area litter control, loading docks and trash storage areas	Owner	See CASQA BMP Fact Sheet SD-32 in Appendix 10 -Inspection and Maintenance of common areas, loading docks and trash storage areas shall begin upon completion of construction. -Visual inspection of trash storage areas shall take place on a weekly basis and adjusted on an as needed basis. -Inspect areas for trash and debris. Remove any found trash and debris immediately. Dispose of trash and debris in a legal manner. -Inspect areas for any spills. Pick up/clean up found spills immediately. Dispose of spill material in a legal manner.	Daily
Parking lot sweeping		See CASQA BMP Fact Sheet SE-7 in Appendix 10 -Parking lot sweeping shall being after the completion of construction and take place on a monthly basis. Dispose of picked up material in a legal manner.	Monthly

Drainage facility (including roof drains) inspection and maintenance		-Inspection and maintenance of site drainage facilities and roof drains shall begin immediately upon completion of construction. -Catch basins and roof drain inlet shall be clear of any debris - prior to any storm event to ensure proper function of the roof drains. Collected debris shall be disposed of in a legal manner. Catch basin filters shall be inspected on a monthly basis. Catch basin filters that have exceeded 50% of the storage capacity shall be cleaned immediately. -Catch basin filters shall be maintained per the manufacturer's specifications. -Damaged catch basin filters shall be replaced with an approved equal prior to the next storm event or as soon as practicable.	Monthly & after rain event
Contech Bioscape Treatment		See Appendix 10 Inspections should occur after every major storm for the first year to ensure that proper stabilization and function is achieved. Continuous inspection and maintenance shall be provided once every six months. Special attention should be paid to how long water remains standing in the basin after a storm; standing water within the basin more than 48 hours after a storm indicates that the filtration rates are insufficient and maintenance of the filter basin bottom is needed. If standing water remains after 48 hours, the standing water shall be removed in accordance with the local agency guidelines and maintenance of the filter basin bottom shall be scheduled immediately. -Observe and document evidence of collected sediments, trash, debris -Sediments, trash, debris shall be removed and disposed of in a legal manner. -Replace pretreatment mulch -Prune overgrown vegetation	Every 6 months

Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

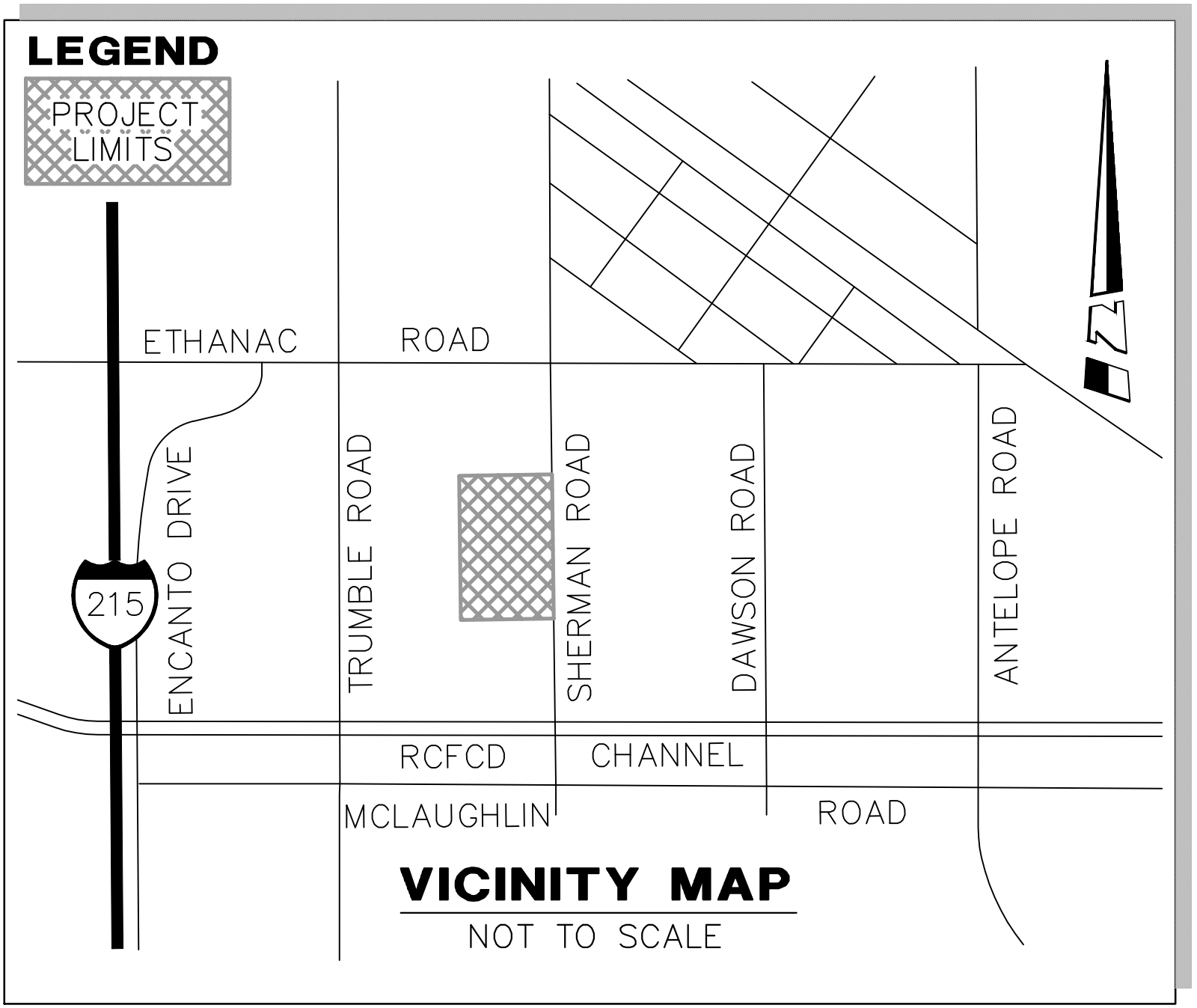
☐ Y ☒ N

Owner Information:
Jon Kelly
Vice President
Core5 Industrial Partners, LLC
300 Spectrum Center Dr, Suite 880
Irvine, CA 92618
949-467-3290
Email: jkelly@c5ip.com

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

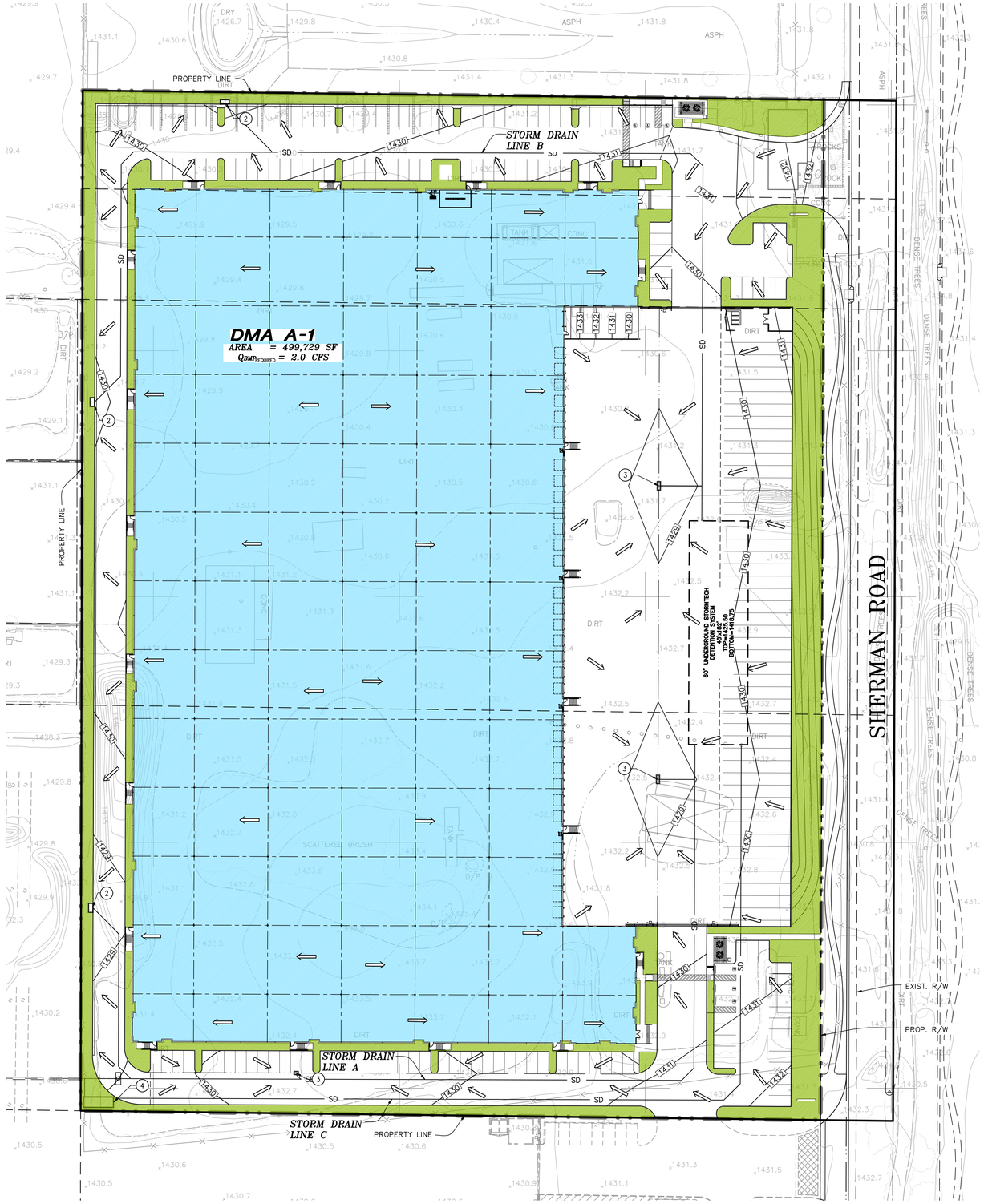
Appendix 1: Maps and Site Plans

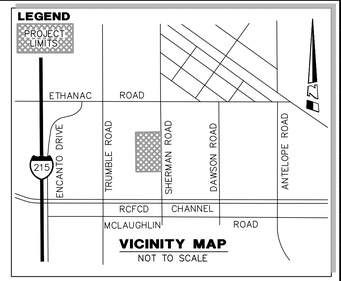
Location Map, WQMP Site Plan and Receiving Waters Map



VICINITY MAP

NOT TO SCALE





VICINITY MAP
NOT TO SCALE

PROJECT BMP CONFORMANCE ANALYSIS

NAME	AREA (SF)	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	i	C			
DMA 1A	50,415	5,041	45,374	0.10	0.11			
DMA 2A	252,576	252,576	0	1.00	0.89	Q_{BMP}(CFS)	BMP	$Q_{PROVIDED}$(CFS)
DMA 3A	196,738	196,738	0	1.00	0.89			
TOTAL	499,729	–	–	–	–	1.89	MODULAR WETLANDS SYSTEM	2.0

WQMP BMP NOTES

1. INSTALL ADS STORMTECH MC–7200 UNDERGROUND CHAMBERS, SEE DETAIL ON SHEET 2
2. INSTALL BIO–CLEAN CURB INLET FILTER SEE DETAIL HEREON
3. INSTALL BIO–CLEAN GRATE INLET FILTER SEE DETAIL HEREON
4. BIO–CLEAN MODULAR WETLANDS SYSTEM 1, MODEL# MWS–L–8–24–V AND DETAIL ON SHEET 2

*SEE WQMP REPORT APPENDIX 10 FOR BMP FACT SHEETS

LEGEND

—SD— PROPOSED STORM DRAIN
WQMP BOUNDARY / LIMIT FOR *BMP SC–41
BUILDING & GROUND MAINTENANCE
PROPOSED CURB OPENING INLET W/ FILTER INSERT
PROPOSED GRATED INLET W/ FILTER INSERT
CB CATCH BASIN
TG TOP OF GRATE
FLOW DIRECTION

LEGEND-DMAs

DMA 1A: PROPOSED LANDSCAPING AREA – *BMP SD–10 & SD–12
DMA 2A: PROPOSED ROOFS
DMA 3A: PROPOSED CONCRETE

BIO CLEAN FULL CAPTURE FILTER WITH TROUGH SYSTEM

FOR USE IN CURB INLETS

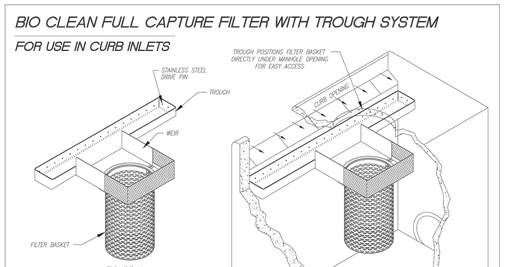


FIGURE 1: DETAIL OF PARTS

FIGURE 2: DETAIL OF CONFIGURATION

FIGURE 4: DETAIL OF PROFILE

FIGURE 3: DETAIL OF MOUNTING

MODEL NUMBER	TREATMENT FLOW (cfs)*	SOLIDS STORAGE CAPACITY (cu ft)
BC–CURB–FC–30	2.85	2.21
BC–CURB–FC–24	2.85	1.77
BC–CURB–FC–18	2.85	1.33
BC–CURB–FC–12	2.85	0.88

*SEE PAGE 2 FOR EXPLANATION OF FLOW RATES

NOTES:
1. TROUGH SYSTEM PROVIDES FOR ENTIRE COVERAGE OF INLET OPENING SO TO DIVERT ALL FLOW TO FILTER.
2. TROUGH SYSTEM MANUFACTURED FROM MARINE GRADE FIBERGLASS, GEL COATED FOR UV PROTECTION.
3. SYSTEM ATTACHED TO THE CATCH BASIN WITH NON–CORROSIVE HARDWARE.
4. FILTER MANUFACTURED OF 100% STAINLESS STEEL.
5. FILTER MADE OF NON–CLOGGIN SCREEN WITH 4.7 MM OPENINGS AND MEETS FULL CAPTURE REQUIREMENTS.
6. FILTER CAN BE FITTED WITH HYDROCARBON ABSORBENT BOOM
7. FILTER IS LOCATED DIRECTLY UNDER THE MANHOLE FOR EASY REMOVAL AND MAINTENANCE.
8. LENGTH OF TROUGH CAN VARY FROM 2' TO 30'.
9. OTHER STANDARD AND CUSTOM MODEL SIZES AVAILABLE – CONTACT BIO CLEAN FOR MORE INFORMATION.
10. CONSIDERS A SAFETY FACTOR OF 2.0
11. BYPASS IS FACILITATED VIA OVERFLOW OF THE TROUGH SYSTEM AND IS EQUAL TO THE CAPACITY OF THE CURB OPENING
12. STORAGE CAPACITY BASED ON THE BASKET HALF FULL.
13. ADDITIONAL TREATMENT AND STORAGE CAPACITY CAN BE ACHIEVED BY UTILIZING MULTIPLE FILTER BASKETS.

DRAWING: BIO CLEAN CURB INLET FILTER DETAILS		MEETS FULL CAPTURE REQUIREMENTS
TREATMENT FLOW RATE: 2.85 cfs		MODEL #: BC–CURB–FC
WARRANTY: 5 YEAR MANUFACTURERS		PROJECT:
BIO CLEAN ENVIRONMENTAL SERVICES, INC. 398 VIA EL CENTRO, OCEANSIDE CA 92058 PHONE:760–433–7640 FAX:760–433–3176		REVISIONS: DATE:
DATE: 10/12/2017	SCALE: NTS	REVISIONS: DATE:
DRAFTER: M.C.P.	UNITS = INCHES	REVISIONS: DATE:

Bio Clean
A Forterra Company

PAGE 1

2 CURB INLET BASKET SYSTEM
NOT TO SCALE

Trash Capture Products

Grate Inlet Filter

The Bio Clean Grate Inlet Filter for catch basins keeps property owners in compliance. Preferred by public agencies and backed by an 8 year warranty, this easy to install filter is continuously chosen for its durability and simple maintenance.

Constructed of 100% high grade stainless steel, it is built to last longer than any other filter brand. The non-clogging screens provide higher levels of filtration and water flow. The filter is equipped with unimpeded high flow bypass for even the largest storm events.

The filter is also equipped with a floating hydrocarbon boom mounted to rails allowing it to flow up and down with the water level over a range of flow conditions.

The filter is designed for grated inlets of any size and depth. Each filter can be custom built to meet specific project needs. Screen size and media type can be modified to remove specific pollutants.

Advantages and Performance

- 8 Year warranty
- Custom sizes available
- No nets or geofabrics
- 15+years user life
- No replacement costs as found with fabric filters
- Meets LEED requirements
- Fits in shallow catch basins
- 100% removal of trash and debris
- Meets full capture requirements

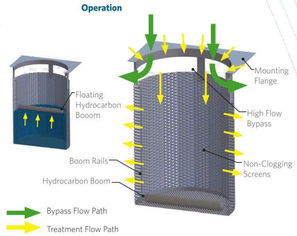
100% Full trash capture

Specifications

Model #	Treatment Flow (CFS)	Bypass Flow (CFS)
BC-GRATE-12-12-12	1.55	1.55
BC-GRATE-18-18-18	4.32	3.68
BC-GRATE-24-24-24	7.67	4.83
BC-GRATE-30-30-24	12.97	6.21
BC-GRATE-25-38-24	13.53	6.59
BC-GRATE-36-36-24	19.64	7.60
BC-GRATE-48-48-18	25.59	10.13

NOTE: Treatment and bypass flow rates include a safety factor of 2.

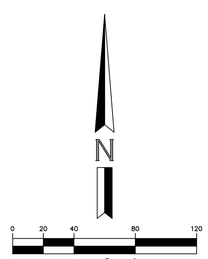
Operation



24

3 GRATE INLET SKIMMER BOX
NOT TO SCALE

STENCIL LOGO
N.T.S.



SCALE 1" = 40'

OWNER/DEVELOPER
CORE 5 INDUSTRIAL PARTNERS
300 SPECTRUM CENTER DRIVE, SUITE 880
IRVINE, CA 92618
PHONE (949)–467–3290
CONTACT PERSON: JON KELLY

CIVIL ENGINEER
HUITT–ZOLLARS, INC.
3990 CONCOURS, SUITE 330
ONTARIO, CALIFORNIA 91764
PHONE: (909) 941–7799, X11411
CONTACT PERSON: JOHNNY MURAD

HUITT-ZOLLARS
Huitt-Zollars, Inc. Ontario
3990 CONCOURS, SUITE 330 • ONTARIO, CALIFORNIA 91764 • (909) 941-7799

CITY OF MENIFEE

POST-CONSTRUCTION BMP SITE MAP

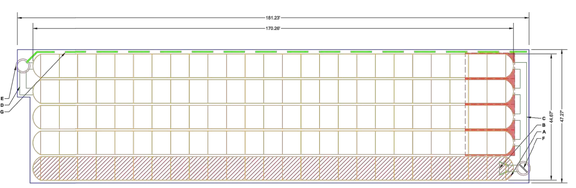
CORE 5 - ETHANAC BUSINESS PARK
BUILDING 1
COUNTY OF RIVERSIDE

SHEET 1 OF 2

Plotted:09/28/2023 - 2:53pm By:Johnny Murad Layout:Layout1 Xrefs:...

PROPOSED LAYOUT		CONCEPTUAL ELEVATIONS:			*INVERT ABOVE BASE OF CHAMBER
105	1 CHAMBER (SC-160) ENCASEMENT	12.34	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNDERSIDE)		
72	1 CHAMBER (SC-160) END CAPS	8.50	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)		
77	1 CHAMBER (SC)	7.33	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)		
46	1 CHAMBER (SC)	6.00	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)		
46	1 CHAMBER (SC)	6.00	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)		
36190	INSTALLED SYSTEM VOLUME (CY) (PERIMETER STONE INCLUDED) (ASSUMES 12" (300 mm) STONE BASE INCLUDED)		TOP OF STONE		
			TOP OF CHAMBERS		
			12" (300 mm) MINIMUM COVER		
			24" (600 mm) MAXIMUM COVER		
8435	SYSTEM AREA (SF)		# OF ACTIVE INLET ROWS		
4872	SYSTEM PERIMETER (ft)		# OF OUTLET ROWS		
1506	AS-BUILT STONE VOLUME (IN-SITU) (PERIMETER STONE AND EMBEDMENT STONE BELOW CHAMBERS, FOUNDATION STONE, AND STONE ABOVE CHAMBERS TO BOTTOM OF STONE)				

PART TYPE	ITEM OR LAYER	DESCRIPTION	INVERT	MAX FLOW
1 PREFABRICATED END CAP	A	END CAP, BOTTOM PARTIAL CUT, END CAP, PARTIAL MC7200EPPRB (TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATION PLUS ROW)	2.28"	
1 FLOWGUARD	B	INSTALL FLOWGUARD IN 24" ACCESS PIPE / PASTE SOFTLIGHT		
1 MANIFOLD	C	24" x 24" BOTTOM MANIFOLD, ADS N-12	2.28"	
1 MANIFOLD	D	24" x 24" BOTTOM MANIFOLD, ADS N-12	2.28"	
1 CONCRETE STRUCTURE	E	MH/CB/DCB/YI, STRUCTURE (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		14.8 CFS OUT
1 CONCRETE STRUCTURE	F	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		38.6 CFS IN
1 MANIFOLD	G	8" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		
1 UNDERDRAIN				



ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 17.50' OF ADSPLUS75 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

THERMOPLASTIC LINER (SEE TECH NOTE #6.50 PROVIDED BY OTHERS / DESIGN BY OTHERS)

NOTES

- STRUCTURE SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THE CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND FOUNDATION FOR THE BEARING CAPACITY OF THE INSTALLED SYSTEM. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- ADS DOES NOT DESIGN OR PROVIDE MEMBRANE LINER SYSTEMS FOR CISTERNS (RAINWATER HARVESTING), TO MINIMIZE THE LEAKAGE POTENTIAL OF LINER SYSTEMS, THE MEMBRANE LINER SHOULD BE INSTALLED BY A FACTORY CERTIFIED PROFESSIONAL AND INSTALLED BY A QUALIFIED CONTRACTOR.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

3 MC-7200 ISOLATOR ROW PLUS DETAIL

SPACE INTENTIONALLY LEFT BLANK

MC-SERIES END CAP INSERTION DETAIL
NTS

NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

5 MC-SERIES END CAP INSERTION DETAIL

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. USING A FLASHLIGHT AND RULER MEASURE FLOW IF INSTALLED
  - A.3. REMOVE AND CLEAN FLOW IF NECESSARY
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT (VIDEO OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 3. IF NOT, PROCEED TO STEP 4.
- B. ALL ISOLATOR ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - 1) USE CAMERA AND/OR CAREFULLY LOOK DOWN STRUCTURE FROM OUTLET PIPE
    - 2) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 3. IF NOT, PROCEED TO STEP 4.

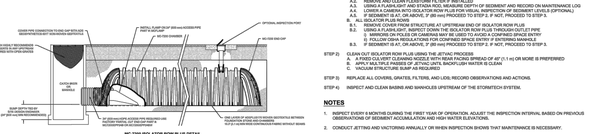
STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY CLEANING UNTIL WATER RUNS CLEAR AT DOWNSTREAM MANHOLE
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.


INSTALL FLARE (FOR 6in(150mm) ACCESS PIPE) (SEE NOTE 6)
OPTIONAL INSPECTION PORT
ADS GEOSYNTHETICS 601HS (OR EQUIVALENT) WRAPPED AROUND #57 STONE
MC-7200 END CAP
INTERFACE GRID IS RECOMMENDED BETWEEN THE ISOLATOR ROW PLUS AND THE STADIUM STONE
CHOKE #89 OR #9 STONE
#57 STONE
12" (300 mm) MIN
ISOLATOR ROW PLUS
#57 STONE
#57 STONE
#57 STONE

Appendix 2: Construction Plans

Grading and Drainage Plans

Attached Conceptual Grading and Drainage Plans

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

June 16, 2022

Core5 Industrial Partners
300 Spectrum Center Drive, Suite 880
Irvine, California 92618

Attention: Mr. Jon Kelly
Vice President Development

Project No.: **22G173-2**

Subject: **Results of Infiltration Testing**
Proposed Menifee Commerce Center – Phase III
Sherman Road, North of McLaughlin Road
Menifee, California

Reference: Geotechnical Investigation, Proposed Menifee Commerce Center – Phase III, Sherman Road, North of McLaughlin Road, Menifee, California, prepared for Core5 Industrial Partners, by Southern California Geotechnical, Inc. (SCG), SCG Project No. 22G173-1, dated June 3, 2022.

Mr. Kelly:

In accordance with your request, we have conducted infiltration testing at the subject site. We are pleased to present this report summarizing the results of the infiltration testing and our design recommendations.

Scope of Services

The scope of services performed for this project was in general accordance with our Proposal No. 22P198, dated April 19, 2022. The scope of services included site reconnaissance, subsurface exploration, field testing, and engineering analysis to determine the infiltration rates of the onsite soils. The infiltration testing was performed in general accordance with the guidelines published in Riverside County – Low Impact Development BMP Design Handbook – Section 2.3 of Appendix A, prepared for the Riverside County Department of Environmental Health (RCDEH), dated December, 2013.

Site and Project Description

The subject site is located on the west side of Sherman Road, 950± feet north of McLaughlin Road in Menifee, California. The site is bounded to the north by an industrial building, to the west by single-family residences and vacant lots, to the south by a vacant lot, and to the east by Sherman Road. The general location of the site is illustrated on the Site Location Map, enclosed as Plate 1 A of this report.

The subject site consists of a rectangular-shaped parcel, which totals 11.3± acres in size. The site is developed with an aggregate (sand and gravel) supply company, which includes an office building, 1,200± ft² in size, located in the northeastern corner of the site. The building is a single-story structure of wood-frame construction, presumably supported on conventional shallow

foundations, with a concrete slab-on-grade floor. Several soil and/or aggregate stockpiles are located in the south and southwest regions of the site. A concrete loading dock, approximately 4 feet in height, is located in the west-central region of the site. Masonry block wall enclosures are located along the northwestern boundary of the site. Ground surface cover throughout the site generally consists of crushed aggregate base (CAB).

Detailed topographic information was not available at the time of this report. Based on elevations obtained from Google Earth and visual observations made at the time of the subsurface investigation, the overall site slopes downward to the west at a gradient of less than 1± percent.

Proposed Development

Based on the conceptual site plan provided to our office by the client, the site will be developed with one (1) industrial building. The new building will be located in the west-central area of the site and will be 261,420± ft² in size. The building will be constructed with dock-high doors along a portion of the east building wall. The building will be surrounded by asphaltic concrete (AC) pavements in the parking and drive lanes, Portland cement concrete (PCC) pavements in the loading dock areas, and concrete flatwork with limited areas of landscape planters throughout.

The proposed development will include on-site storm water infiltration. The infiltration system will consist of a below-grade chamber system located in the eastern area of the site. The bottom of the infiltration system is expected be 12± feet below the existing site grades.

Concurrent Study

Artificial fill soils were encountered at the ground surface at Boring Nos. B-2, B-3, B-5 and B-6, extending to depths of 2½ to 3± feet below ground surface. The fill soils generally consist of medium dense to dense clayey fine sand and silty fine sands with varying medium to coarse sand and gravel content, and stiff clayey silts. Older alluvium was encountered beneath the artificial fill soils or at the ground surface at all of the boring locations, extending to at least the maximum depth explored of 25± feet below ground surface. The alluvial soils generally consist of medium dense to very dense silty fine to coarse sands, clayey fine to medium sands and fine sandy silts, and very stiff to hard fine sandy clays, silty clays and clayey silts with varying fine to coarse sand content.

Groundwater

Free water was not encountered during the drilling of any of the borings. Based on the lack of any water within the borings, and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth in excess of 25± feet at the time of the subsurface exploration.

Recent water level data was obtained from the California Department of Water Resources website, http://www.water.ca.gov/waterdatalibrary/. One monitoring well on record is located 600± feet northwest of the site. Water level readings within this monitoring well indicates a high groundwater level of 66± feet below ground surface in March 2022.

Subsurface Exploration

Scope of Exploration

The subsurface exploration conducted for the infiltration testing consisted of two (2) infiltration test borings, advanced to a depth of 12± feet below the existing site grades. The infiltration borings were advanced using a truck-mounted drilling rig, equipped with 8-inch-diameter hollow stem augers and were logged during drilling by a member of our staff. The approximate locations of the infiltration test borings (identified as I-1 and I-2) are indicated on the Infiltration Test Location Plan, enclosed as Plate 2 of this report.

Upon the completion of the infiltration borings, the bottom of each test boring was covered with 2± inches of clean ¾-inch gravel. A sufficient length of 3-inch-diameter perforated PVC casing was then placed into each test hole so that the PVC casing extended from the bottom of the test hole to the ground surface. Clean ¾-inch gravel was then installed in the annulus surrounding the PVC casing.

Geotechnical Conditions

Artificial fill soils were encountered at the ground surface at both of the infiltration test locations, extending to a depth of 3± feet below the existing site grades. The fill soils generally consist of very stiff silty clays and medium dense silty fine to coarse sands with varying gravel content. These materials possess a slightly disturbed appearance, resulting in their classification as artificial fill. Native older alluvium was encountered beneath the fill soils at both of the infiltration test boring locations, extending to at least the maximum explored depth of 12± feet below existing site grades. The older alluvium generally consists of dense to very dense clay sands and silty sands, and occasional hard sandy clay strata. The Boring Logs, which illustrate the conditions encountered at the boring locations, are included with this report.

Infiltration Testing

As previously mentioned, the infiltration testing was performed in general accordance with the Riverside County guidelines: Riverside County – Low Impact Development BMP Design Handbook – Section 2.3 of Appendix A.

Pre-soaking

In accordance with the county infiltration standards all of the infiltration test borings were pre-soaked prior to the infiltration testing. The pre-soaking process consisted of filling the test borings by inverting a full 5-gallon bottle of clear water supported over each hole so that the water level reaches a level of at least 5 times the hole's radius above the gravel at the bottom of each hole. The pre-soaking was completed after all of the water had percolated through each test hole or after 15 hours since initiating the pre-soak.

Infiltration Testing

Following the pre-soaking process of the infiltration test borings, SCG performed the infiltration testing. Each test hole was filled with water to a depth of at least 5 times the hole's radius above the gravel at the bottom of each test hole. In accordance with the Riverside County guidelines,

since "non-sandy soils" were encountered at the bottom of the infiltration test borings (where 6 inches of water did not infiltrate into the surrounding soils in less than 25 minutes for two (2) consecutive readings), readings were taken at 30-minute intervals for a total of 6 hours at the test location. The water level readings are presented on the spreadsheets enclosed with this report. The infiltration rates for each of the timed intervals are also tabulated on the spreadsheets.

The infiltration rates for the infiltration tests are calculated in centimeters per hour and then converted to inches per hour. The rates are summarized below:

Infiltration Test No.	Depth (feet)	Soil Description	Infiltration Rate (inches/hour)
I-1	12	Clayey fine to coarse Sand, little Silt	0.01
I-2	12	Silty fine to medium Sand, trace coarse Sand, little Clay	0.03

Design Recommendations

Two (2) infiltration tests were performed at the subject site. As noted above, the calculated infiltration rates at the infiltration test locations range from 0.01 to 0.03 inches per hour. The major factors affecting the lack of infiltration at these locations are the varying relative densities and the moderate silt/clay content. **Based on the lack of infiltration at the depths tested, infiltration is not considered feasible for this site.**

Although infiltration is not considered feasible at the site, the client may desire to use storm water disposal systems that do not rely on infiltration at this site. The design of the storm water infiltration system should be performed by the project civil engineer, in accordance with the City of Menifee and/or County of Riverside guidelines. It is recommended that the system be constructed so as to facilitate removal of silt and clay, or other deleterious materials from any water that may enter the systems. The presence of such materials would decrease the effective infiltration rates. **It is recommended that the project civil engineer apply an appropriate factor of safety. The infiltration rates recommended above is based on the assumption that only clean water will be introduced to the subsurface profile. Any fines, debris, or organic materials could significantly impact the infiltration rate.** It should be noted that the recommended infiltration rates are based on infiltration testing at two (2) discrete locations and that the overall infiltration rates of the proposed infiltration systems could vary considerably.

Infiltration Rate Considerations

The infiltration rates presented herein was determined in accordance with the Riverside County guidelines and are considered valid only for the time and place of the actual test. Varying subsurface conditions will exist in other areas of the site, which could alter the recommended infiltration rates presented above. The infiltration rates will decline over time between maintenance cycles as silt or clay particles accumulate on the BMP surface. The infiltration rate is highly dependent upon a number of factors, including density, silt and clay content, grainsize distribution throughout the range of particle sizes, and particle shape. Small changes in these factors can cause large changes in the infiltration rates.

Infiltration rates are based on unsaturated flow. As water is introduced into soils by infiltration, the soils become saturated and the wetting front advances from the unsaturated zone to the saturated zone. Once the soils become saturated, infiltration rates become zero, and water can only move through soils by hydraulic conductivity at a rate determined by pressure head and soil permeability. Changes in soil moisture content will affect the infiltration rate. Infiltration rates should be expected to decrease until the soils become saturated. Soil permeability values will then govern groundwater movement. Permeability values may be on the order of 10 to 20 times less than infiltration rates. The system designer should incorporate adequate factors of safety and allow for overflow design into appropriate traditional storm drain systems, which would transport storm water off-site.

Location of Infiltration Systems

The use of on-site storm water infiltration systems carries a risk of creating adverse geotechnical conditions. Increasing the moisture content of the soil can cause the soil to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Overlying structures and pavements in the infiltration area could potentially be damaged due to saturation of the subgrade soils. **The proposed infiltration systems for this site should be located at least 25 feet away from any structures, including retaining walls.** Even with this provision of locating the infiltration system at least 25 feet from the building(s), it is possible that infiltrating water into the subsurface soils could have an adverse effect on the proposed or existing structures. It should also be noted that utility trenches which happen to collect storm water can also serve as conduits to transmit storm water toward the structure, depending on the slope of the utility trench. Therefore, consideration should also be given to the proposed locations of underground utilities which may pass near the proposed infiltration system.

The infiltration system designer should also give special consideration to the effect that the proposed infiltration systems may have on nearby subterranean structures, open excavations, or descending slopes. In particular, infiltration systems should not be located near the crest of descending slopes, particularly where the slopes are comprised of granular soils. Such systems will require specialized design and analysis to evaluate the potential for slope instability, piping failures and other phenomena that typically apply to earthen dam design. This type of analysis is beyond the scope of this infiltration test report, but these factors should be considered by the infiltration system designer when locating the infiltration systems.

Closure

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

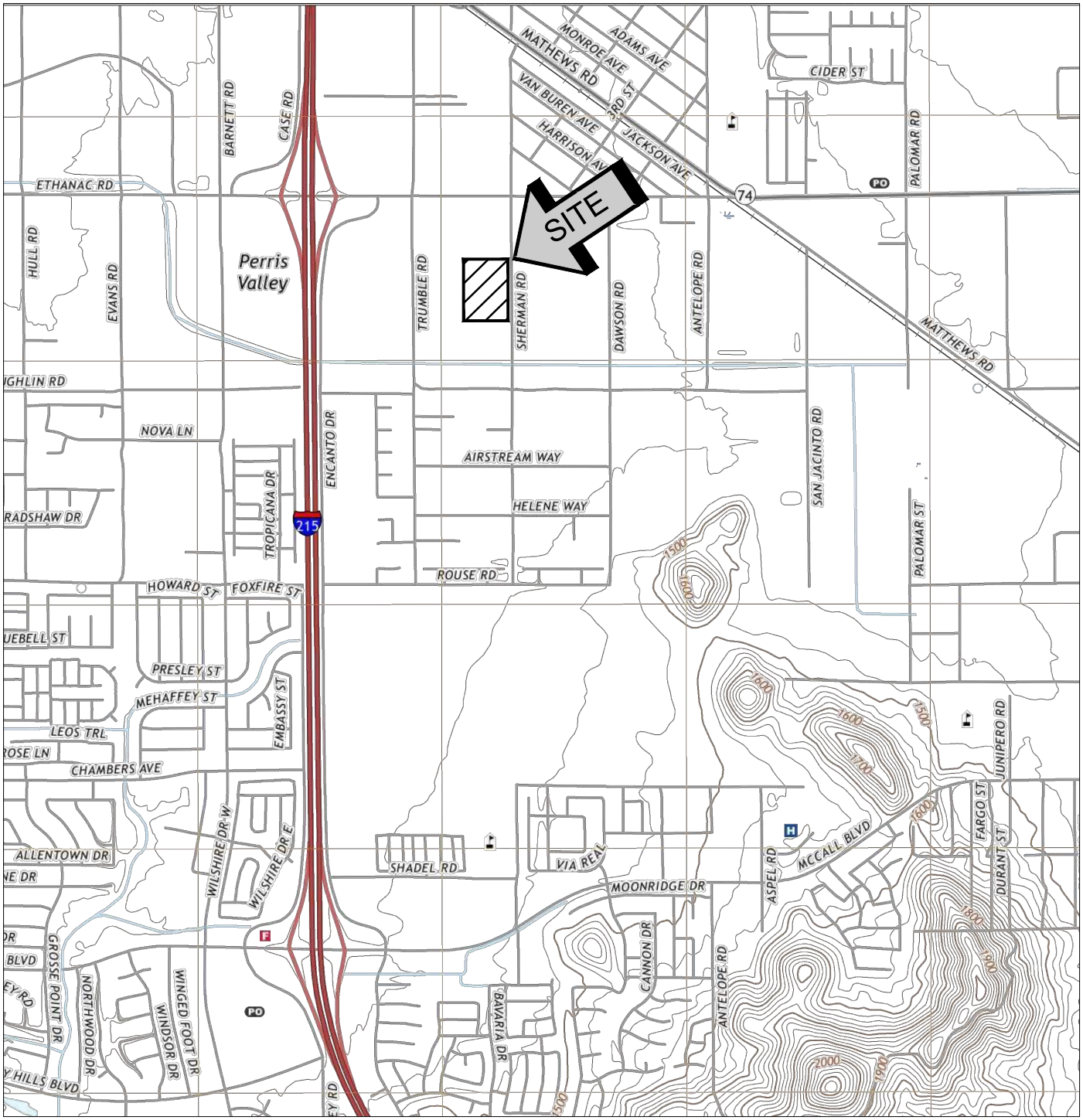
SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

Pablo Montes Jr.
Project Engineer

Robert G. Trazo, GE 2655
Principal Engineer

Distribution: (1) Addressee

Enclosures: Plate 1 - Site Location Map
Plate 2 - Infiltration Test Location Plan
Boring Log Legend and Logs (4 pages)
Infiltration Test Results Spreadsheets (2 pages)
Grainsize Distribution Graphs (2 pages)



SOURCE: USGS TOPOGRAPHIC MAP OF THE ROMOLAND QUADRANGLE, RIVERSIDE COUNTY, CALIFORNIA, 2022

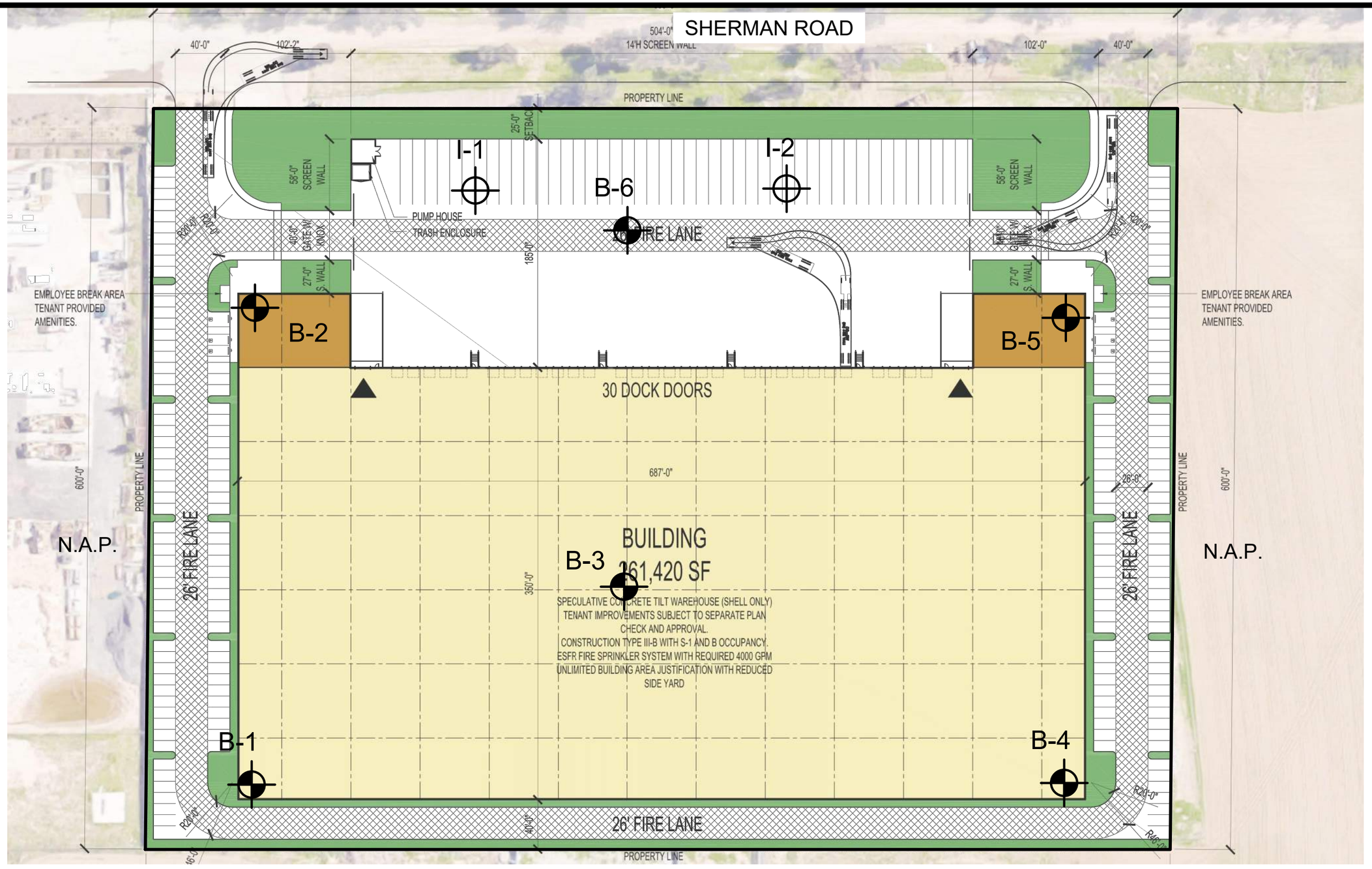
SITE LOCATION MAP

MENIFEE COMMERCE CENTER - PHASE III

MENIFEE, CALIFORNIA

SCALE: 1" = 2000'	
DRAWN: OS CHKD: RGT	
SCG PROJECT 22G173-2	
PLATE 1	

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL



GEOTECHNICAL LEGEND

APPROXIMATE INFILTRATION TEST LOCATION

APPROXIMATE BORING LOCATION
(SCG PROJECT NO. 22G173-1)

NORTH
SoCalGeo

NOTE: SITE PLAN PROVIDED BY THE CLIENT

INFILTRATION TEST LOCATION PLAN

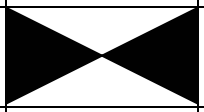
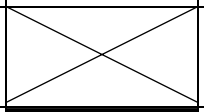
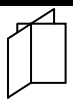
MENIFEE COMMERCE CENTER - PHASE III

MENIFEE, CALIFORNIA

SCALE: 1" = 80'	
DRAWN: OS CHKD: RGT	
SCG PROJECT 22G173-2	
PLATE 2	

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL

BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

DEPTH: Distance in feet below the ground surface.

SAMPLE: Sample Type as depicted above.

BLOW COUNT: Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

POCKET PEN.: Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

GRAPHIC LOG: Graphic Soil Symbol as depicted on the following page.

DRY DENSITY: Dry density of an undisturbed or relatively undisturbed sample in lbs/ft^3.

MOISTURE CONTENT: Moisture content of a soil sample, expressed as a percentage of the dry weight.

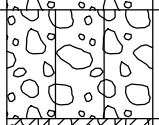
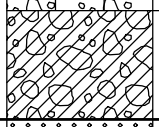
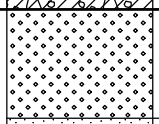
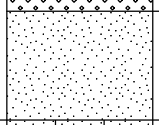
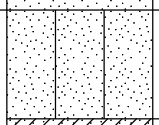
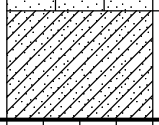
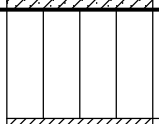
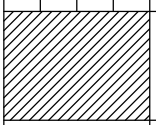
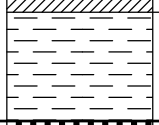
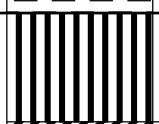
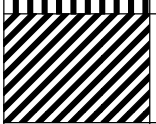
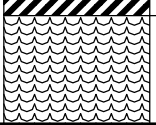
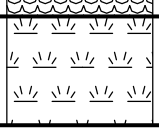
LIQUID LIMIT: The moisture content above which a soil behaves as a liquid.

PLASTIC LIMIT: The moisture content above which a soil behaves as a plastic.

PASSING #200 SIEVE: The percentage of the sample finer than the #200 standard sieve.

UNCONFINED SHEAR: The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. I-1

JOB NO.: 22G173-2 | DRILLING DATE: 4/27/22 | WATER DEPTH: Dry
PROJECT: Menifee Commerce Center Phase III | DRILLING METHOD: Hollow Stem Auger | CAVE DEPTH: ---
LOCATION: Menifee, California | LOGGED BY: Joey Hernandez | READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		19	4.5		FILL: Dark Brown Silty Clay, little fine to medium Sand, very stiff-moist		14					
		53	4.5		OLDER ALLUVIUM: Light Brown fine Sandy Clay, hard-moist		10					
5		67			Light Brown Clayey fine Sand, little Silt, slightly cemented, very dense-moist		10					
		56					12					
10		59			Light Brown Clayey fine to coarse Sand, little Silt, very dense-moist		9			29		
					Boring Terminated at 12'							

TBL 22G173-2.GPJ SOCALGEO.GDT 6/16/22

TEST BORING LOG **PLATE I-1**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. I-2

JOB NO.: 22G173-2 | DRILLING DATE: 4/27/22 | WATER DEPTH: Dry
PROJECT: Menifee Commerce Center Phase III | DRILLING METHOD: Hollow Stem Auger | CAVE DEPTH: ---
LOCATION: Menifee, California | LOGGED BY: Joey Hernandez | READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		19			FILL: Gray Silty fine to medium Sand, trace coarse Sand, little fine to coarse Gravel, medium dense-damp		7					
		61			OLDER ALLUVIUM: Red Brown Silty fine Sand, moderately cemented, very dense-damp		7					
5		51			Brown Clayey fine Sand, little Silt, moderately cemented, very dense-moist		12					
		32			Brown Silty fine to medium Sand, trace coarse Sand, little Clay, slightly cemented, dense-moist to very moist		14					
10		47					8			25		
					Boring Terminated at 12'							

TBL 22G173-2.GPJ SOCALGEO.GDT 6/16/22

TEST BORING LOG **PLATE I-2**

INFILTRATION CALCULATIONS

Project Name	Menifee Commerce Center Phase III
Project Location	Menifee, California
Project Number	22G173-2
Engineer	ME

Test Hole Radius	4	(in)
Test Depth	12.00	(ft)

Infiltration Test Hole: I-1

Soil Criteria Test

Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	8:00 AM	25.00	9.00	0.96	NO	NON-SANDY SOILS
	Final	8:25 AM		9.08			
2	Initial	8:25 AM	25.00	9.00	0.84	NO	NON-SANDY SOILS
	Final	8:50 AM		9.07			

Test Data

Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	8:55 AM	30.00	9.00	0.09	2.96	0.12
	Final	9:25 AM		9.09			
2	Initial	9:25 AM	30.00	9.00	0.07	2.97	0.09
	Final	9:55 AM		9.07			
3	Initial	9:55 AM	30.00	9.00	0.06	2.97	0.08
	Final	10:25 AM		9.06			
4	Initial	10:25 AM	30.00	9.00	0.05	2.98	0.06
	Final	10:55 AM		9.05			
5	Initial	10:55 AM	30.00	9.00	0.05	2.98	0.06
	Final	11:25 AM		9.05			
6	Initial	11:25 AM	30.00	9.00	0.04	2.98	0.05
	Final	11:55 AM		9.04			
7	Initial	11:55 AM	30.00	9.00	0.02	2.99	0.03
	Final	12:25 PM		9.02			
8	Initial	12:25 PM	30.00	9.00	0.02	2.99	0.03
	Final	12:55 PM		9.02			
9	Initial	12:55 PM	30.00	9.00	0.01	3.00	0.01
	Final	1:25 PM		9.01			
10	Initial	1:25 PM	30.00	9.00	0.01	3.00	0.01
	Final	1:55 PM		9.01			
11	Initial	1:55 PM	30.00	9.00	0.01	3.00	0.01
	Final	2:25 PM		9.01			
12	Initial	2:25 PM	30.00	9.00	0.01	3.00	0.01
	Final	2:55 PM		9.01			

Per County Standards, Infiltration Rate calculated as follows:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Where: Q = Infiltration Rate (in inches per hour)
ΔH = Change in Height (Water Level) over the time interval
r = Test Hole (Borehole) Radius
Δt = Time Interval
H_{avg} = Average Head Height over the time interval

INFILTRATION CALCULATIONS

Project Name	Menifee Commerce Center Phase III
Project Location	Menifee, California
Project Number	22G173-2
Engineer	ME

Test Hole Radius	4	(in)
Test Depth	12.00	(ft)

Infiltration Test Hole: I-2

Soil Criteria Test

Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	8:40 AM	25.00	9.70	0.84	NO	NON-SANDY SOILS
	Final	9:05 AM		9.77			
2	Initial	9:05 AM	25.00	9.70	0.60	NO	NON-SANDY SOILS
	Final	9:30 AM		9.75			

Test Data

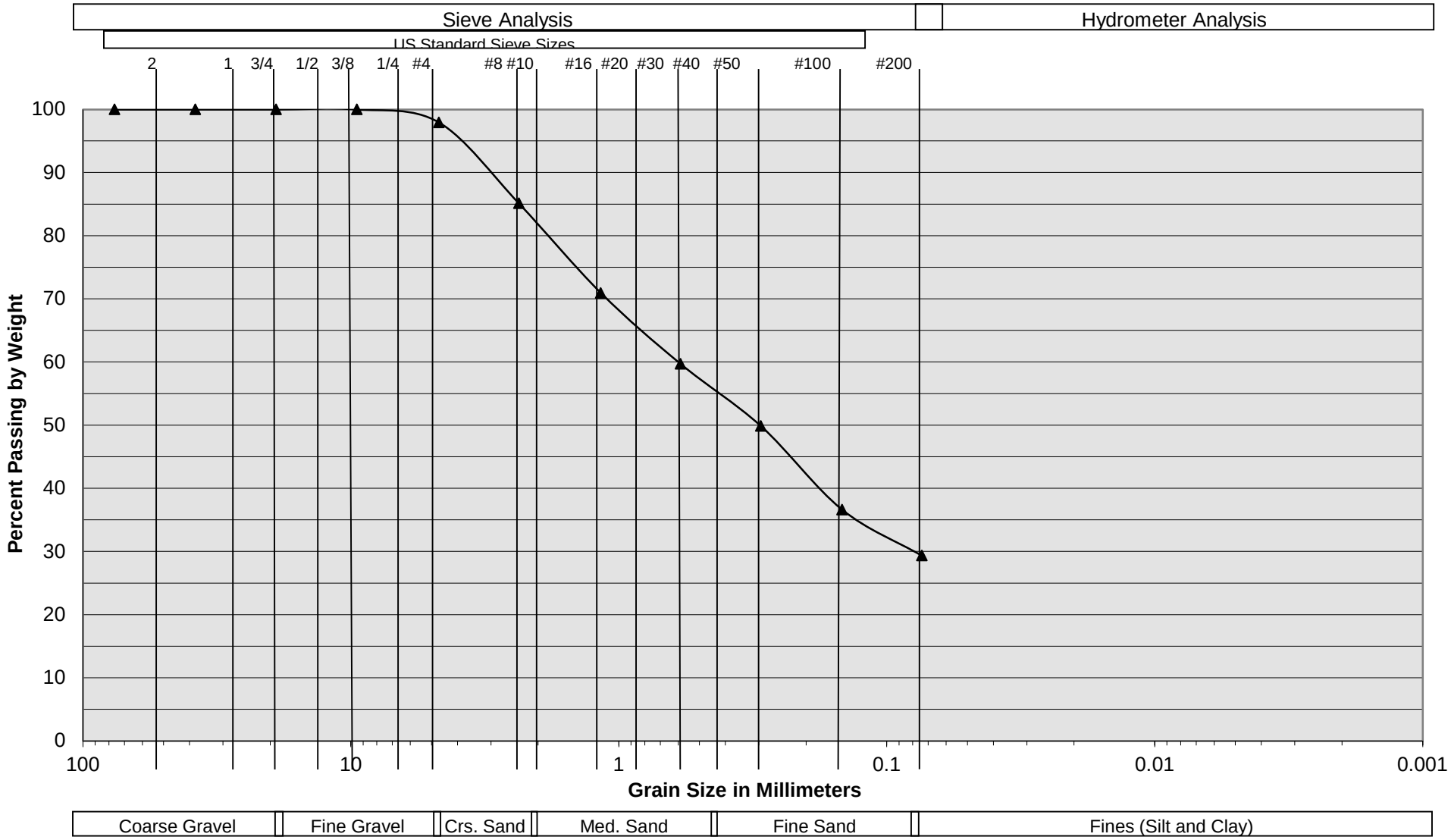
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	9:35 AM	30.00	9.70	0.07	2.27	0.12
	Final	10:05 AM		9.77			
2	Initial	10:05 AM	30.00	9.70	0.07	2.27	0.12
	Final	10:35 AM		9.77			
3	Initial	10:35 AM	30.00	9.70	0.05	2.28	0.08
	Final	11:05 AM		9.75			
4	Initial	11:05 AM	30.00	9.70	0.05	2.28	0.08
	Final	11:35 AM		9.75			
5	Initial	11:05 AM	30.00	9.70	0.04	2.28	0.07
	Final	11:35 AM		9.74			
6	Initial	11:35 AM	30.00	9.70	0.04	2.28	0.07
	Final	12:05 PM		9.74			
7	Initial	12:05 PM	30.00	9.70	0.04	2.28	0.07
	Final	12:35 PM		9.74			
8	Initial	12:35 PM	30.00	9.70	0.04	2.28	0.07
	Final	1:05 PM		9.74			
9	Initial	1:05 PM	30.00	9.70	0.02	2.29	0.03
	Final	1:35 PM		9.72			
10	Initial	2:05 PM	30.00	9.70	0.02	2.29	0.03
	Final	2:35 PM		9.72			
11	Initial	2:35 PM	30.00	9.70	0.02	2.29	0.03
	Final	3:05 PM		9.72			
12	Initial	3:05 PM	30.00	9.70	0.02	2.29	0.03
	Final	3:35 PM		9.72			

Per County Standards, Infiltration Rate calculated as follows:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Where: Q = Infiltration Rate (in inches per hour)
ΔH = Change in Height (Water Level) over the time interval
r = Test Hole (Borehole) Radius
Δt = Time Interval
H_{avg} = Average Head Height over the time interval

Grain Size Distribution

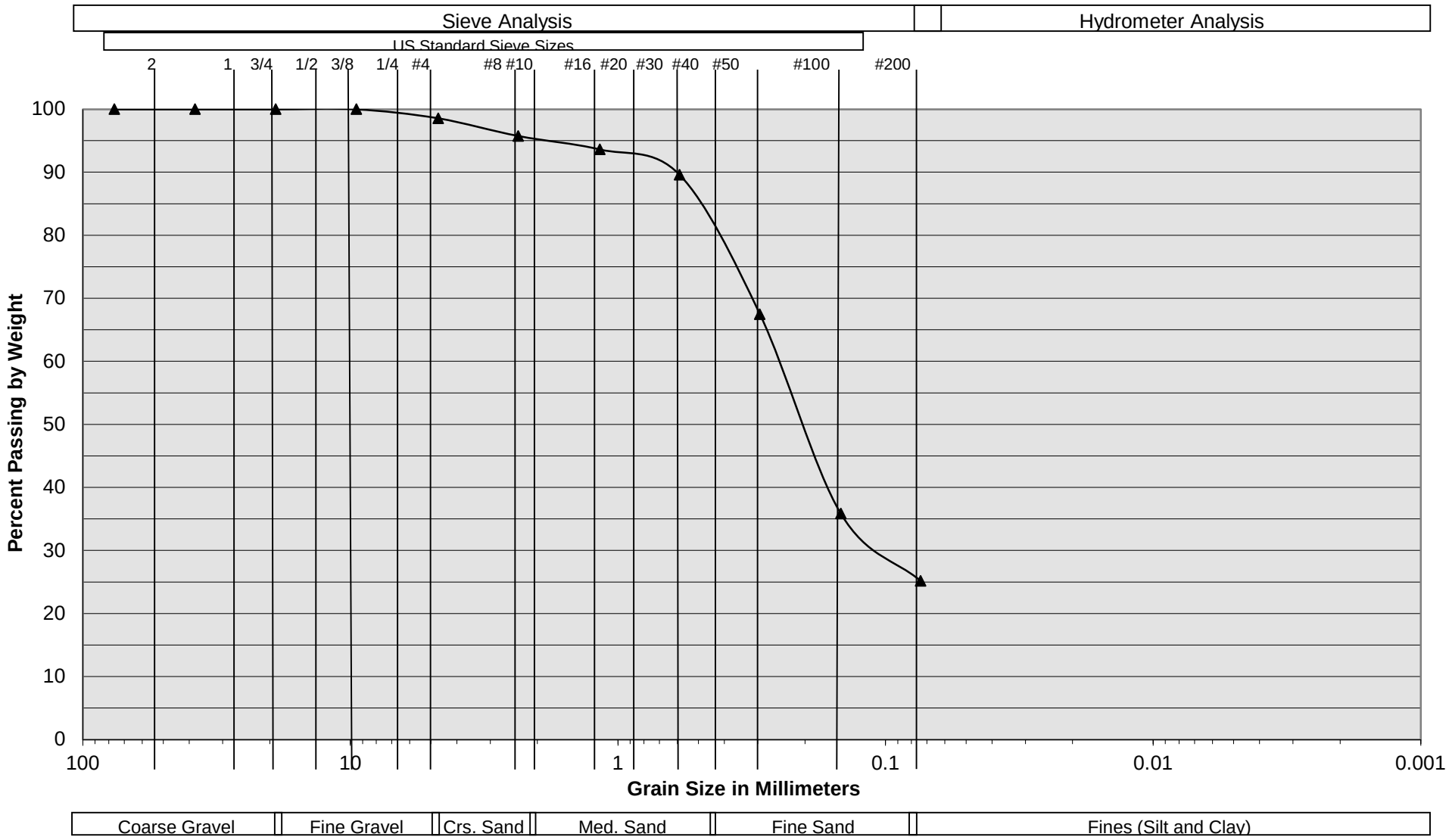


Sample Description	I-1 @ 10.5'
Soil Classification	Light Brown Clayey fine to coarse Sand, little Silt

Menifee Commerce Center Phase III
Menifee, California
Project No. 22G173-2
PLATE C- 1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Grain Size Distribution



Sample Description	I-2 @ 10.5'
Soil Classification	Brown Silty fine to medium Sand, trace coarse Sand, little Clay

Menifee Commerce Center Phase III
Menifee, California
Project No. 22G173-2
PLATE C- 2

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Appendix 4: Historical Site Conditions(N/A)

Phase I Environmental Site Assessment or Other Information on Past Site Use

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

Reference page 59 form Riverside County WQMP Guidance

TABLE 3-4. LID BMP Applicability

LID BMP Hierarchy	A	B	C	D
	K_{SAT}> 1.6"/hr., and no restrictions on infiltration	Are Harvest and Use BMPs feasible?	0.3"/hr. < K_{SAT} < 1.6"/hr., or unpredictable or unknown	K_{SAT} < 0.3"/hr.
LID Infiltration BMPs*	✓			
Harvest and Use BMPs		✓		✓
LID Bioretention	✓		✓	✓
LID Biotreatment				✓

Notes for Table 3-5:

***See also** Figure 3-6 for guidance in selecting appropriate BMPs*

***Column A:** Selections from this column may be used in locations where the infiltration rate of underlying soils is at least 1.6" per hour and no restrictions on infiltration apply to these locations.*

***Column B:** Harvest and Use BMPs may be used where it can be shown that there is sufficient demand for harvested water and where LID Infiltration BMPs are not feasible.*

***Column C:** Selections in this column may be used in locations where the measured infiltration rate of underlying soils is between 0.3" and 1.6" per hour or where, in accordance with recommendations of a licensed geotechnical engineer, the post-development saturated hydraulic conductivity is uncertain or unknown or cannot be reliably predicted because of soil disturbance or fill, anisotropic soil characteristics, presence of clay lenses, or other factors.*

***Column D:** Selections in this column may be used in locations where the infiltration rate of underlying soils is 0.3" per hour or less. See Chapter 2 for more information.*

** Permeable Pavement, when designed with a maximum of a 2:1 ratio of impervious area to pervious pavement areas, or less, is considered a self-retaining area, and is not considered an LID BMP for the purposes of this table. This table focuses on the 'special case' included in the discussion of 'areas draining to self-retaining areas' above, where a project proponent can choose to design the pervious pavement as a LID BMP in accordance with an approved design, such as the LID BMP Design handbook, and in return drain additional impervious area onto the pervious pavement beyond the 2:1 ratio.*

3.4.2.a. Laying out your LID BMPs

Finding the right location for LID BMPs on your site involves a careful and creative integration of several factors:

- ✓ To make the most efficient use of the site and to maximize aesthetic value, **integrate BMPs with site landscaping**. Many local zoning codes may require landscape setbacks or buffers, or may specify that a minimum portion of the site be landscaped. It may be possible to locate some or all of your site's Stormwater BMPs within this same area, or within utility easements or other non-buildable areas.

- ✓ Bioretention BMPs must be **level or nearly level** all the way around. When configured in a linear fashion (similar to swales) bioretention BMPs may be gently sloped end to end, but opposite sides must be at the same

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

R 07 W | R 06 W | R 05 W | R 04 W | R 03 W | R 02 W | R 01 W | R 01 E | R 02 E | R 03 E | R 04 E | R 05 E

T 01 S
T 02 S
T 03 S
T 04 S
T 05 S
T 06 S
T 07 S
T 08 S

0.85 MiraLoma
0.61 RiversideNorth
0.54 RiversideSouth
0.68 PigeonPass
0.66 MorenoEast
0.85 Beaumont
0.88 PradoDam
0.51 Woodcrest
0.50 LakeMathews
0.68 PerrisReservoir
0.87 VistaGrandeGS
0.70 SanJacintoNWS
1.18 Idyllwild
0.58 SunCity
0.68 Winchester
0.70 Elsinore
1.11 ElCarisoStation
0.90 HurkeyCreek
0.77 WildomarLaCresta
0.52 SkinnerLake
0.65 Anza
0.77 SantaRosaPlateau
1.00 TemeculaNWS
0.64 AguangaValley

Project Site 0.62

Santa Ana River Watershed
Santa Margarita Watershed

JURUPA VALLEY | EASTVALE | NORCO | CORONA | RIVERSIDE | MORENO VALLEY | CALIMESA | BEAUMONT | SAN JACINTO | PERRIS | CANYON LAKE | HEMET | MENIFEE | MURRIETA | TEMECULA

N

Rain Gage Locations

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

Isohyetal Map for the 85th Percentile 24 hour Storm Event

July 2011

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	

Advanced Drainage Systems, Inc.

ADS SiteAssist™
FOR STORMTECH
INSTALLATION INSTRUCTIONS
VISIT OUR APP

ETHANAC BUSINESS PARK

MENIFEE, CA, USA

MC-7200 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH MC-7200.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101.
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-7200 CHAMBER SYSTEM

1. STORMTECH MC-7200 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-7200 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-7200 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 9" (230 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE SHALL BE BROUGHT UP EVENLY AROUND CHAMBERS SO AS NOT TO DISTORT THE CHAMBER SHAPE. STONE DEPTHS SHOULD NEVER DIFFER BY MORE THAN 12" (300 mm) BETWEEN ADJACENT CHAMBER ROWS.
10. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
11. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIAL BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
12. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH MC-7200 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-7200 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-7200 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-7200 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-7200 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

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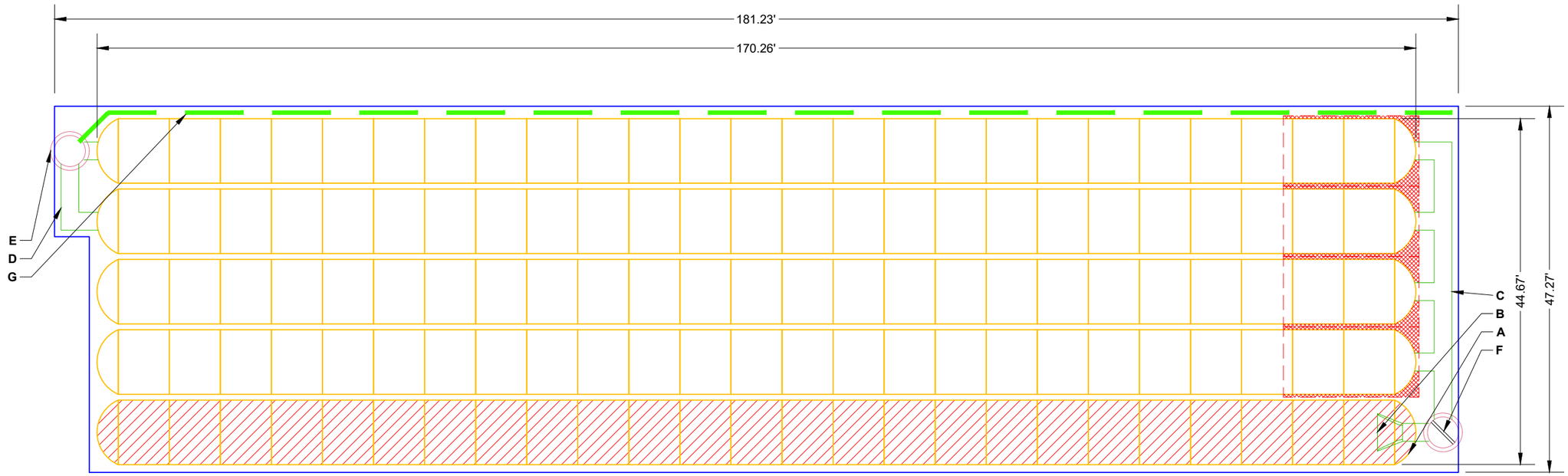
PROPOSED LAYOUT		CONCEPTUAL ELEVATIONS:	
125	STORMTECH MC-7200 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	12.75
10	STORMTECH MC-7200 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	8.25
12	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	7.75
9	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	7.75
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	7.75
36190	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	6.75
		TOP OF MC-7200 CHAMBER:	5.75
		24" x 24" BOTTOM MANIFOLD INVERT:	0.94
		24" x 24" BOTTOM MANIFOLD INVERT:	0.94
8430	SYSTEM AREA (SF)	24" ISOLATOR ROW PLUS INVERT:	0.94
457.0	SYSTEM PERIMETER (ft)	24" BOTTOM CONNECTION INVERT:	0.94
1536	THERMOPLASTIC LINER (SY) (20% OVERAGE)	BOTTOM OF MC-7200 CHAMBER:	0.75
		UNDERDRAIN INVERT:	0.00
		BOTTOM OF STONE:	0.00

*INVERT ABOVE BASE OF CHAMBER

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
PREFABRICATED END CAP	A	24" BOTTOM PARTIAL CUT END CAP, PART#: MC7200IEPP24B / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	2.26"	
FLAMP	B	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: MCFLAMP		
MANIFOLD	C	24" x 24" BOTTOM MANIFOLD, ADS N-12	2.26"	
MANIFOLD	D	24" x 24" BOTTOM MANIFOLD, ADS N-12	2.26"	
CONCRETE STRUCTURE	E	OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		14.0 CFS OUT
CONCRETE STRUCTURE W/WEIR	F	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		38.0 CFS IN
UNDERDRAIN	G	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		



ISOLATOR ROW PLUS
(SEE DETAIL)

PLACE MINIMUM 17.50' OF ADSPLUS175 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

THERMOPLASTIC LINER (SEE TECH NOTE #6.50 PROVIDED BY OTHERS / DESIGN BY OTHERS)

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- ADS DOES NOT DESIGN OR PROVIDE MEMBRANE LINER SYSTEMS FOR CISTERNS (RAINWATER HARVESTING). TO MINIMIZE THE LEAKAGE POTENTIAL OF LINER SYSTEMS, THE MEMBRANE LINER SYSTEM SHOULD BE DESIGNED BY A KNOWLEDGEABLE GEOTEXTILE PROFESSIONAL AND INSTALLED BY A QUALIFIED CONTRACTOR.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

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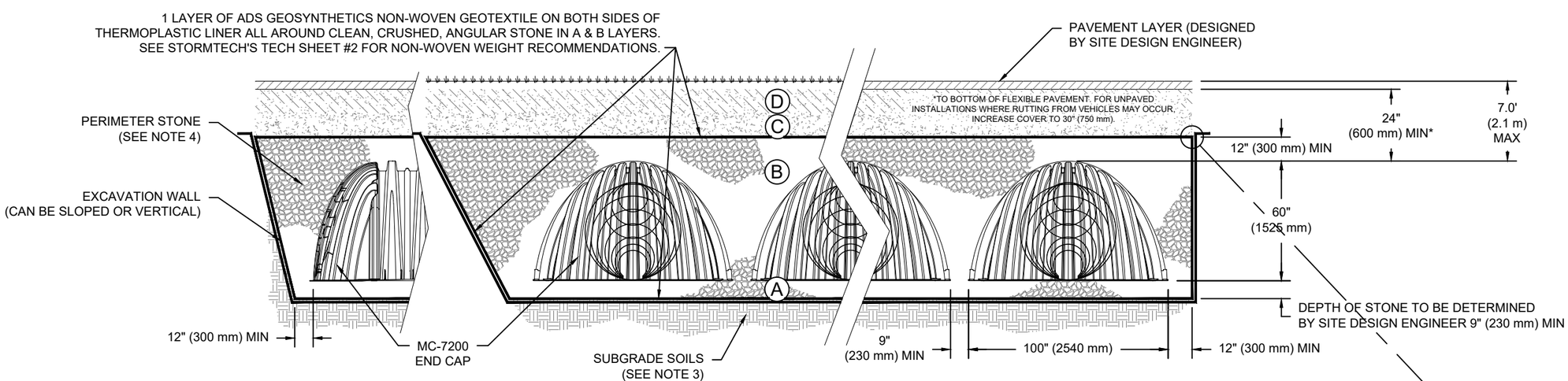
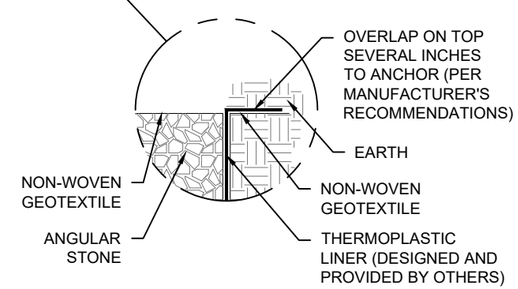
ACCEPTABLE FILL MATERIALS: STORMTECH MC-7200 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.





THERMOPLASTIC LINER DETAIL

NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
2. MC-7200 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

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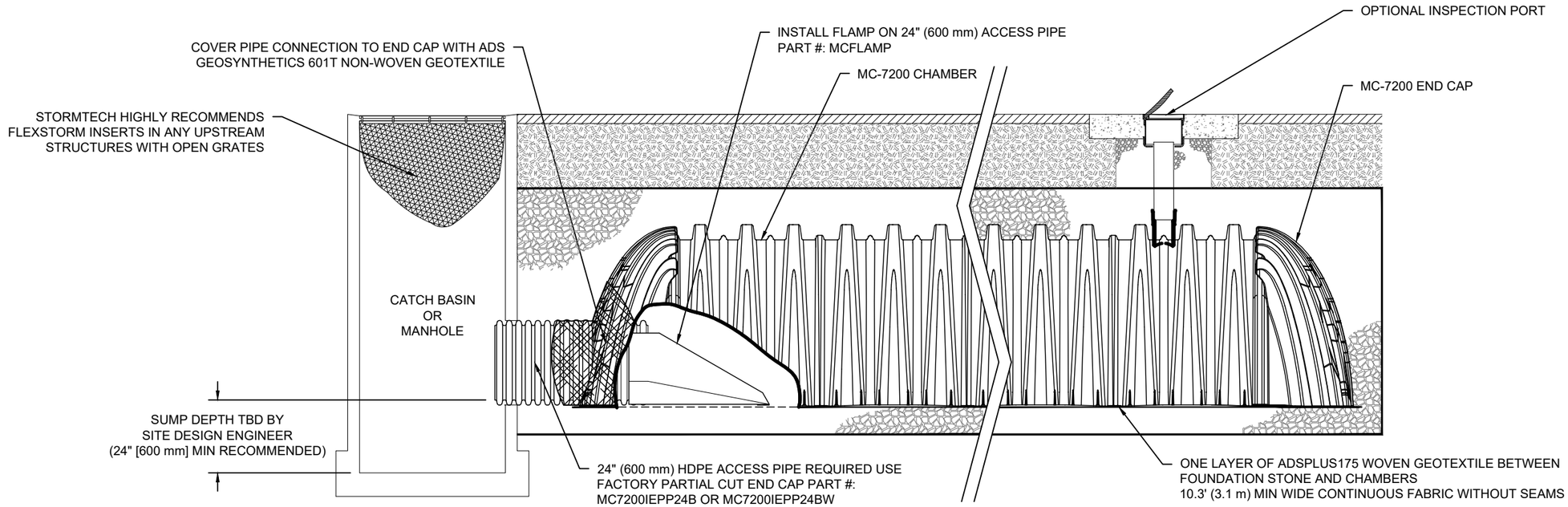

MC-7200 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

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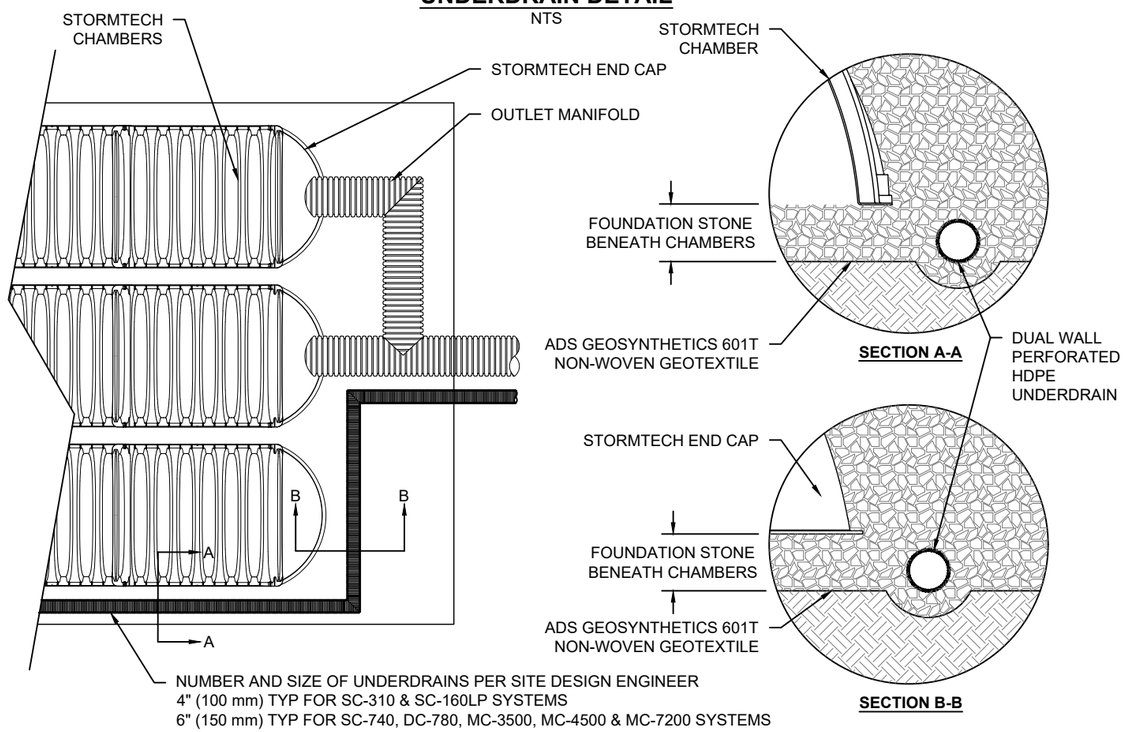
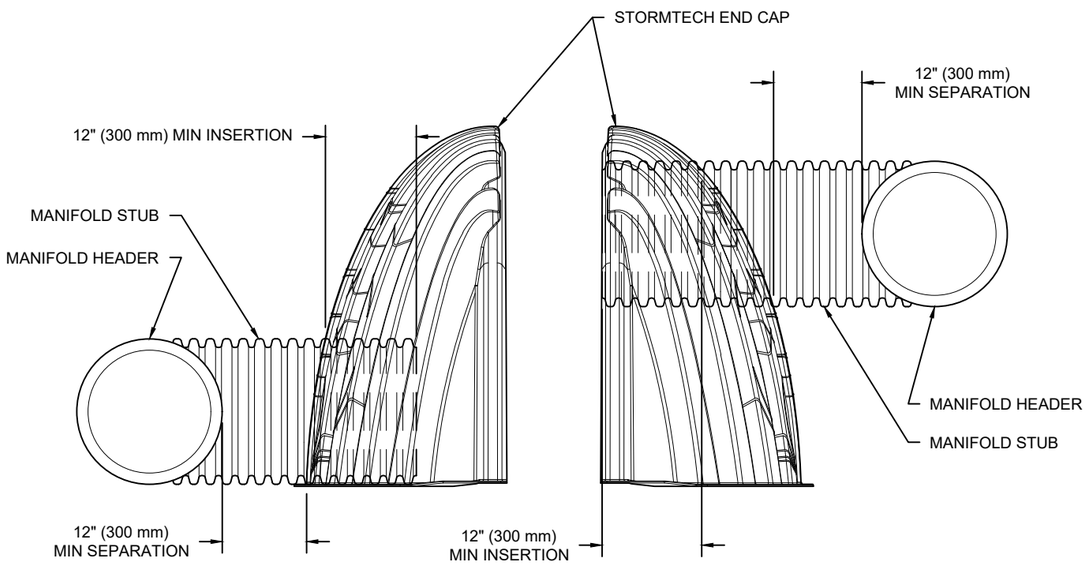
UNDERDRAIN DETAIL

NTS



MC-SERIES END CAP INSERTION DETAIL

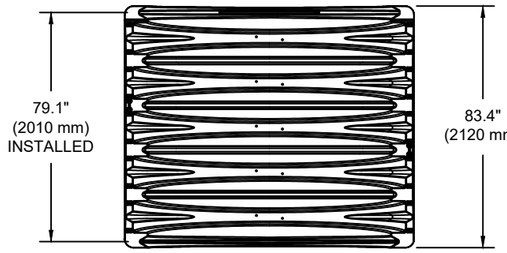
NTS

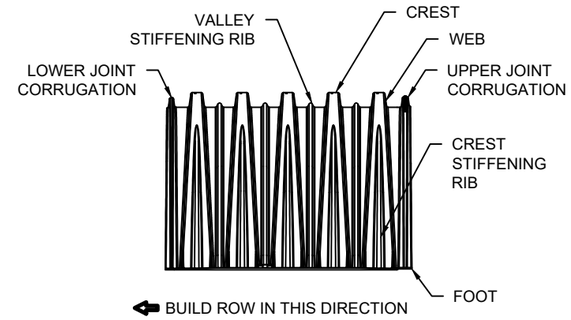


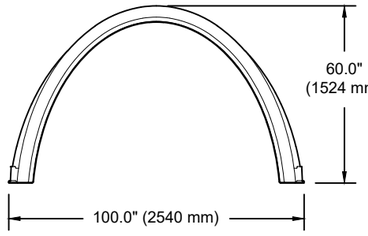
NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

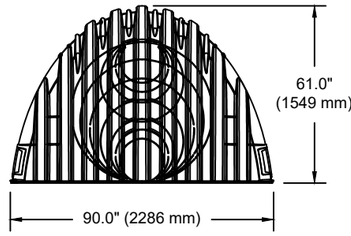
MC-7200 TECHNICAL SPECIFICATION

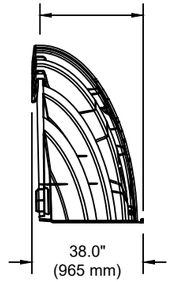
NTS











NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	100.0" X 60.0" X 79.1"	(2540 mm X 1524 mm X 2010 mm)
CHAMBER STORAGE	175.9 CUBIC FEET	(4.98 m³)
MINIMUM INSTALLED STORAGE*	267.3 CUBIC FEET	(7.56 m³)
WEIGHT (NOMINAL)	205 lbs.	(92.9 kg)

NOMINAL END CAP SPECIFICATIONS

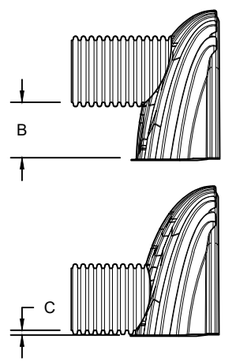
SIZE (W X H X INSTALLED LENGTH)	90.0" X 61.0" X 32.8"	(2286 mm X 1549 mm X 833 mm)
END CAP STORAGE	39.5 CUBIC FEET	(1.12 m³)
MINIMUM INSTALLED STORAGE*	115.3 CUBIC FEET	(3.26 m³)
WEIGHT (NOMINAL)	90 lbs.	(40.8 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC7200IEPP06T	6" (150 mm)	42.54" (1081 mm)	---
MC7200IEPP06B		---	0.86" (22 mm)
MC7200IEPP08T	8" (200 mm)	40.50" (1029 mm)	---
MC7200IEPP08B		---	1.01" (26 mm)
MC7200IEPP10T	10" (250 mm)	38.37" (975 mm)	---
MC7200IEPP10B		---	1.33" (34 mm)
MC7200IEPP12T	12" (300 mm)	35.69" (907 mm)	---
MC7200IEPP12B		---	1.55" (39 mm)
MC7200IEPP15T	15" (375 mm)	32.72" (831 mm)	---
MC7200IEPP15B		---	1.70" (43 mm)
MC7200IEPP18T	18" (450 mm)	29.36" (746 mm)	---
MC7200IEPP18TW			
MC7200IEPP18B		---	1.97" (50 mm)
MC7200IEPP18BW			
MC7200IEPP24T	24" (600 mm)	23.05" (585 mm)	---
MC7200IEPP24TW			
MC7200IEPP24B		---	2.26" (57 mm)
MC7200IEPP24BW			
MC7200IEPP30BW	30" (750 mm)	---	2.95" (75 mm)
MC7200IEPP36BW	36" (900 mm)	---	3.25" (83 mm)
MC7200IEPP42BW	42" (1050 mm)	---	3.55" (90 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL



CUSTOM PREFABRICATED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-7200 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

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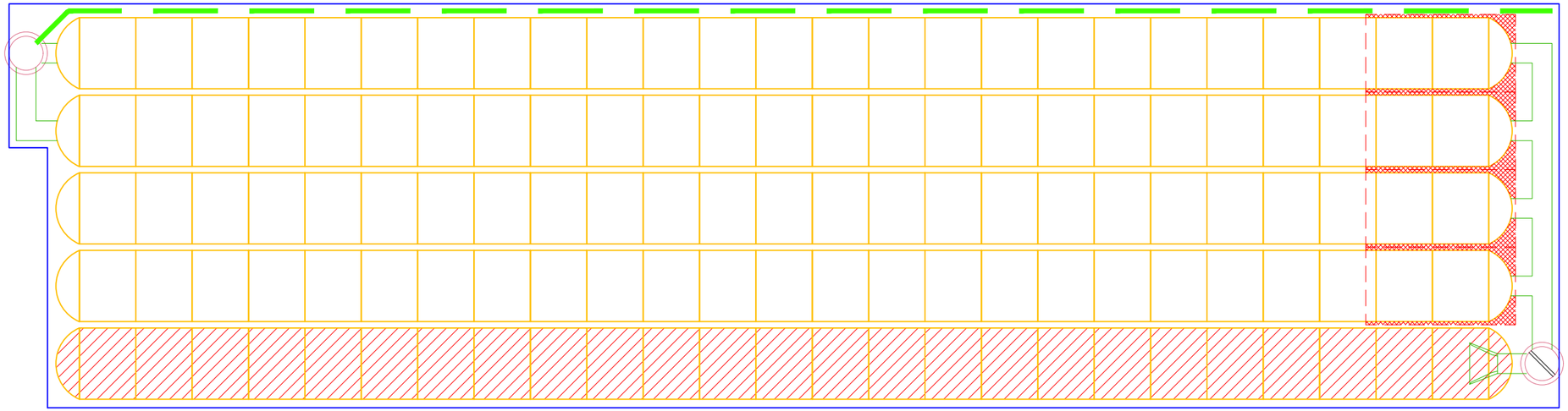

BIO CLEAN FULL CAPTURE FILTER WITH TROUGH SYSTEM

FOR USE IN CURB INLETS

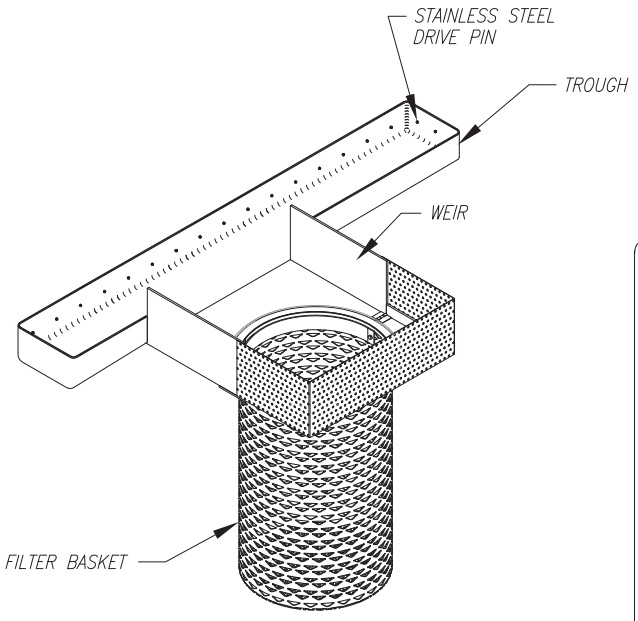

FIGURE 1:
DETAIL OF PARTS

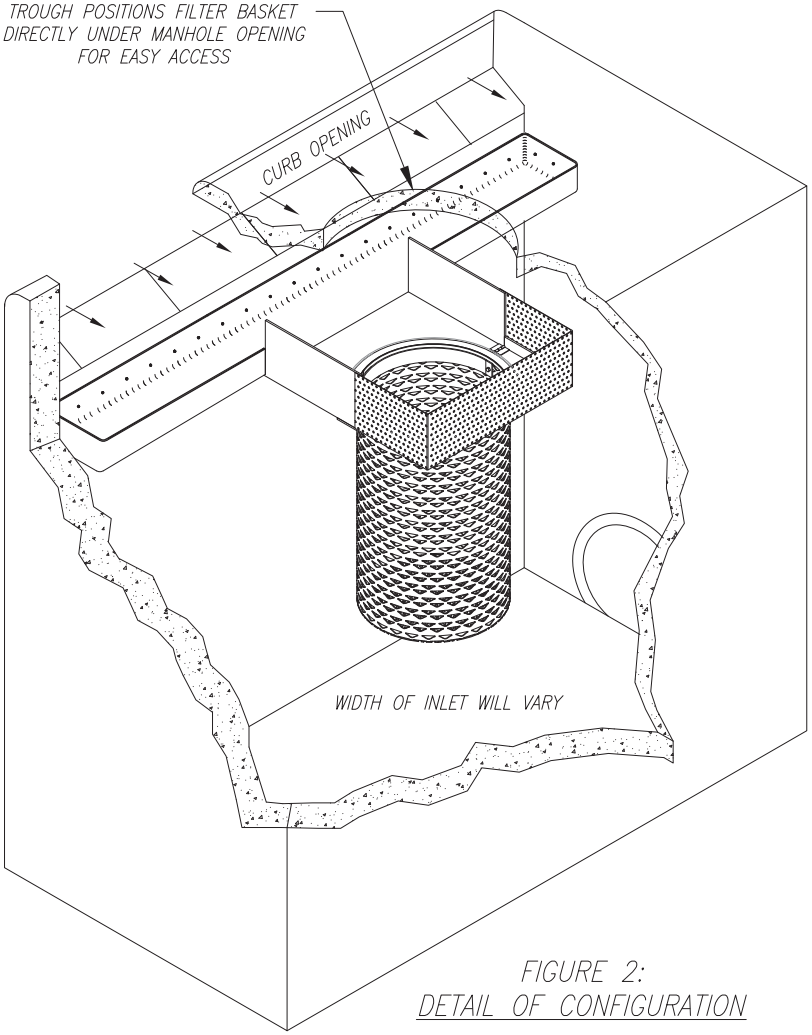

FIGURE 2:
DETAIL OF CONFIGURATION

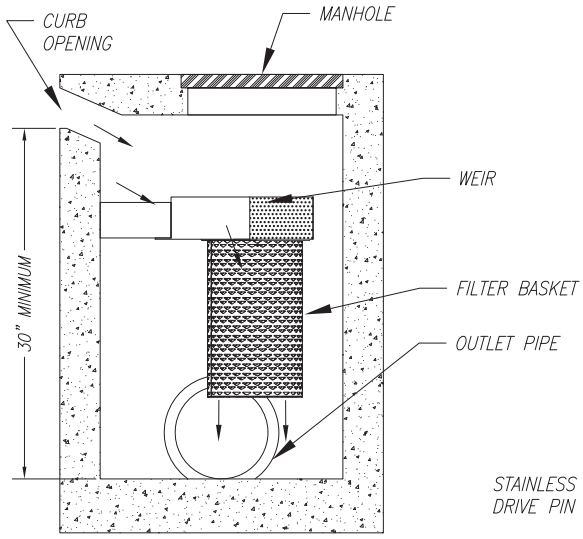

FIGURE 4:
DETAIL OF PROFILE

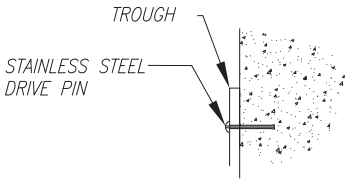

FIGURE 3:
DETAIL OF MOUNTING

NOTES:

1. TROUGH SYSTEM PROVIDES FOR ENTIRE COVERAGE OF INLET OPENING SO TO DIVERT ALL FLOW TO FILTER.
2. TROUGH SYSTEM MANUFACTURED FROM MARINE GRADE FIBERGLASS, GEL COATED FOR UV PROTECTION.
3. SYSTEM ATTACHED TO THE CATCH BASIN WITH NON-CORROSIVE HARDWARE.
4. FILTER MANUFACTURED OF 100% STAINLESS STEEL.
5. FILTER MADE OF NON-CLOGGIN SCREEN WITH 4.7 MM OPENINGS AND MEETS FULL CAPTURE REQUIREMENTS.
6. FILTER CAN BE FITTED WITH HYDROCARBON ABSORBENT BOOM
7. FILTER IS LOCATED DIRECTLY UNDER THE MANHOLE FOR EASY REMOVAL AND MAINTENANCE.
8. LENGTH OF TROUGH CAN VARY FROM 2' TO 30'
9. OTHER STANDARD AND CUSTOM MODEL SIZES AVAILABLE - CONTACT BIO CLEAN FOR MORE INFORMATION.
10. CONSIDERS A SAFETY FACTOR OF 2.0
11. BYPASS IS FACILITATED VIA OVERFLOW OF THE TROUGH SYSTEM AND IS EQUAL TO THE CAPACITY OF THE CURB OPENING
12. STORAGE CAPACITY BASED ON THE BASKET HALF FULL.
13. ADDITIONAL TREATMENT AND STORAGE CAPACITY CAN BE ACHIEVED BY UTILIZING MULTIPLE FILTER BASKETS.

MODEL NUMBER	TREATMENT FLOW (cfs)*	SOLIDS STORAGE CAPACITY (cu ft)
BC-CURB-FC-30	2.85	2.21
BC-CURB-FC-24	2.85	1.77
BC-CURB-FC-18	2.85	1.33
BC-CURB-FC-12	2.85	0.88

*SEE PAGE 2 FOR EXPLANATION OF FLOW RATES

DRAWING: BIO CLEAN CURB INLET FILTER DETAILS	MEETS FULL CAPTURE REQUIREMENTS
TREATMENT FLOW RATE: 2.85 cfs	MODEL #: BC-CURB-FC
WARRANTY: 5 YEAR MANUFACTURERS	PROJECT:

BIO CLEAN ENVIRONMENTAL SERVICES, INC.
398 VIA EL CENTRO, OCEANSIDE CA 92058
PHONE:760-433-7640 FAX:760-433-3176

REVISIONS:	DATE:
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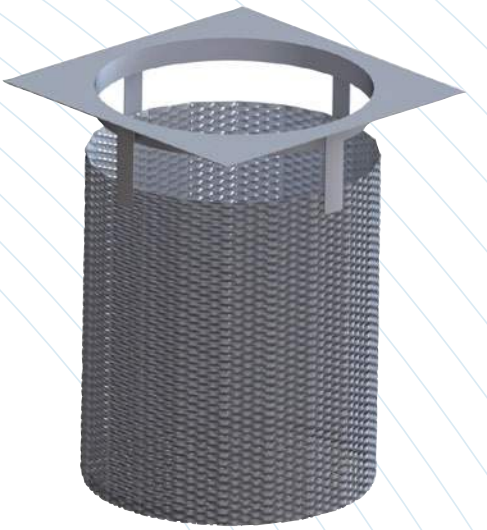
DATE: 10/12/2017	SCALE: NTS
DRAFTER: M.C.P.	UNITS = INCHES

Bio Clean
A Forterra Company

Grate Inlet Filter

100% Full trash capture



The Bio Clean Grate Inlet Filter for catch basins keeps property owners in compliance. Preferred by public agencies and backed by an 8 year warranty, this easy to install filter is continuously chosen for its durability and simple maintenance.

Constructed of 100% high grade stainless steel, it is built to last longer than any other filter brand. The non-clogging screens provide higher levels of filtration and water flow. The filter is equipped with unimpeded high flow bypass for even the largest storm events.

The filter is also equipped with a floating hydrocarbon boom mounted to rails allowing it to flow up and down with the water level over a range of flow conditions.

The filter is designed for grated inlets of any size and depth. Each filter can be custom built to meet specific project needs. Screen size and media type can be modified to remove specific pollutants.

Advantages and Performance

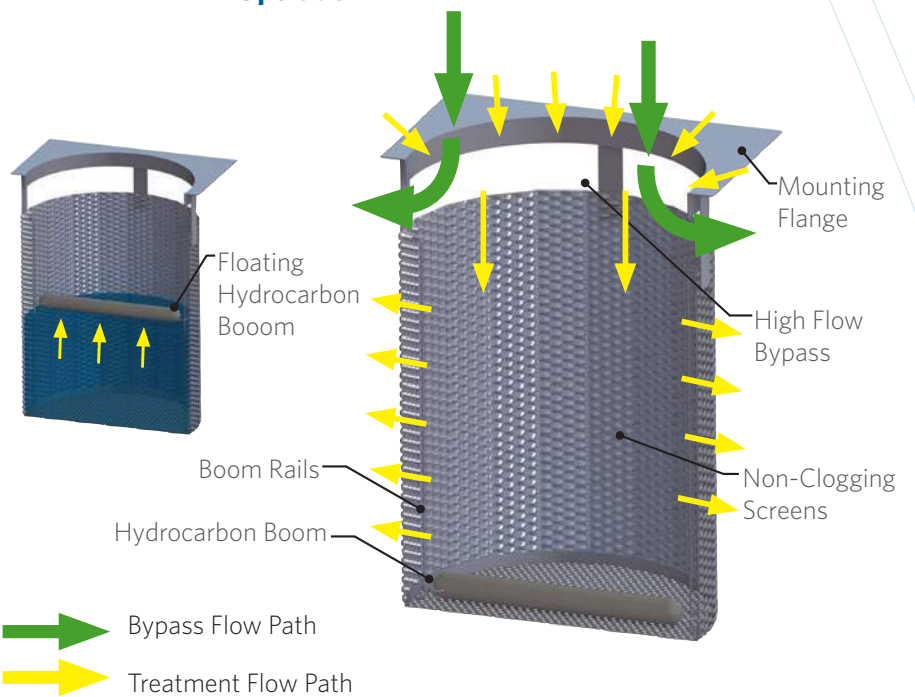
- 8 Year warranty
- Custom sizes available
- No nets or geofabrics
- 15+years user life
- No replacement costs as found with fabric filters
- Meets LEED requirements
- Fits in shallow catch basins
- 100% removal of trash and debris
- Meets full capture requirements

Specifications

Model #	Treatment Flow (CFS)	Bypass Flow (CFS)
BC-GRATE-12-12-12	1.55	1.55
BC-GRATE-18-18-18	4.32	3.68
BC-GRATE-24-24-24	7.67	4.83
BC-GRATE-30-30-24	12.97	6.21
BC-GRATE-25-38-24	13.53	6.59
BC-GRATE-36-36-24	19.64	7.60
BC-GRATE-48-48-18	25.59	10.13

NOTE: Treatment and bypass flow rates include a safety factor of 2.

Operation



Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern

CORE5 - ETHANAC BUSINESS PARK

Detention System Routing Study Summary

Stage Storage Number	Storage Depth (ft)	Elevation (ft)	Area (ft^2)	Incremental volume (ft^3)	Total Volume (ft^3)	Total Volume (acre-ft)	Outflow Q (CFS)	Notes
1	0.00	1418.75	0	0	0	0.000	0.00	**BOTTOM OF BASIN**
2	0.75	1419.50	8,736	2,529	2,529	0.058	0.30	
3	1.75	1420.50	30,866	7,117	9,646	0.221	0.30	
4	2.75	1421.50	30,866	6,849	16,495	0.379	0.30	
5	3.75	1422.50	30,866	6,403	22,898	0.526	0.30	
6	4.65	1423.40	30,866	5,251	28,149	0.646	0.30	**TOP OF WEIR**
7	5.75	1424.50	30,866	4,669	32,818	0.753	19.51	
8	6.75	1425.50	30,866	3,372	36,190	0.831	50.97	**TOP OF BASIN**

*WQMP Design Capture Volume (DCV) is 20,995 CF

Basin Routing Summary Table

	2 YR 24 HR	100 YR 1 HR	100 YR 24 HR
Existing Q (CFS) 11.47 ac	0.28	15.34	4.75
Proposed Q(CFS) 11.47 ac	2.05	33.05	7.51
Q (CFS) after Routing	0.30	30.35	7.45
WSE	1423.21	1424.84	1423.81

U n i t H y d r o g r a p h A n a l y s i s

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Study date 08/18/23 File: 5288Q2PUH242.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6145

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

CORE5 - ETHANAC BUSINESS PARK
2 YEAR STORM EVENT PROPOSED UNIT HYDROGRAPH
5288Q2PUH
DS

Drainage Area = 11.47(Ac.) = 0.018 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 11.47(Ac.) = 0.018 Sq. Mi.
USER Entry of lag time in hours
Lag time = 0.159 Hr.
Lag time = 9.55 Min.
25% of lag time = 2.39 Min.
40% of lag time = 3.82 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
11.47	2.05	23.51

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
11.47	5.33	61.14

STORM EVENT (YEAR) = 2.00
Area Averaged 2-Year Rainfall = 2.050(In)
Area Averaged 100-Year Rainfall = 5.330(In)

Point rain (area averaged) = 2.050(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 2.050(In)

Sub-Area Data:
Area(Ac.) Runoff Index Impervious %

11.470	69.00	0.900

Total Area Entered = 11.47(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	49.8	0.574	0.900	0.109	1.000	0.109
					Sum (F) =	0.109

Area averaged mean soil loss (F) (In/Hr) = 0.109
Minimum soil loss rate ((In/Hr)) = 0.055
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.180

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	52.378	6.585	0.761
2	0.167	104.756	28.141	3.253
3	0.250	157.134	28.537	3.299
4	0.333	209.512	12.156	1.405
5	0.417	261.890	6.589	0.762
6	0.500	314.268	4.584	0.530
7	0.583	366.646	3.293	0.381
8	0.667	419.024	2.458	0.284
9	0.750	471.402	1.795	0.207
10	0.833	523.780	1.546	0.179
11	0.917	576.158	1.189	0.137
12	1.000	628.536	0.938	0.108
13	1.083	680.913	0.719	0.083
14	1.167	733.291	0.541	0.063
15	1.250	785.669	0.524	0.061
16	1.333	838.047	0.405	0.047
		Sum = 100.000	Sum=	11.560

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.016	0.193	0.003	0.01
2	0.17	0.07	0.016	0.193	0.003	0.01
3	0.25	0.07	0.016	0.192	0.003	0.01
4	0.33	0.10	0.025	0.191	0.004	0.02
5	0.42	0.10	0.025	0.190	0.004	0.02
6	0.50	0.10	0.025	0.190	0.004	0.02
7	0.58	0.10	0.025	0.189	0.004	0.02
8	0.67	0.10	0.025	0.188	0.004	0.02
9	0.75	0.10	0.025	0.187	0.004	0.02
10	0.83	0.13	0.033	0.187	0.006	0.03
11	0.92	0.13	0.033	0.186	0.006	0.03
12	1.00	0.13	0.033	0.185	0.006	0.03
13	1.08	0.10	0.025	0.184	0.004	0.02
14	1.17	0.10	0.025	0.184	0.004	0.02
15	1.25	0.10	0.025	0.183	0.004	0.02
16	1.33	0.10	0.025	0.182	0.004	0.02
17	1.42	0.10	0.025	0.182	0.004	0.02
18	1.50	0.10	0.025	0.181	0.004	0.02
19	1.58	0.10	0.025	0.180	0.004	0.02

20	1.67	0.10	0.025	0.179	0.004	0.02
21	1.75	0.10	0.025	0.179	0.004	0.02
22	1.83	0.13	0.033	0.178	0.006	0.03
23	1.92	0.13	0.033	0.177	0.006	0.03
24	2.00	0.13	0.033	0.176	0.006	0.03
25	2.08	0.13	0.033	0.176	0.006	0.03
26	2.17	0.13	0.033	0.175	0.006	0.03
27	2.25	0.13	0.033	0.174	0.006	0.03
28	2.33	0.13	0.033	0.174	0.006	0.03
29	2.42	0.13	0.033	0.173	0.006	0.03
30	2.50	0.13	0.033	0.172	0.006	0.03
31	2.58	0.17	0.041	0.172	0.007	0.03
32	2.67	0.17	0.041	0.171	0.007	0.03
33	2.75	0.17	0.041	0.170	0.007	0.03
34	2.83	0.17	0.041	0.169	0.007	0.03
35	2.92	0.17	0.041	0.169	0.007	0.03
36	3.00	0.17	0.041	0.168	0.007	0.03
37	3.08	0.17	0.041	0.167	0.007	0.03
38	3.17	0.17	0.041	0.167	0.007	0.03
39	3.25	0.17	0.041	0.166	0.007	0.03
40	3.33	0.17	0.041	0.165	0.007	0.03
41	3.42	0.17	0.041	0.165	0.007	0.03
42	3.50	0.17	0.041	0.164	0.007	0.03
43	3.58	0.17	0.041	0.163	0.007	0.03
44	3.67	0.17	0.041	0.162	0.007	0.03
45	3.75	0.17	0.041	0.162	0.007	0.03
46	3.83	0.20	0.049	0.161	0.009	0.04
47	3.92	0.20	0.049	0.160	0.009	0.04
48	4.00	0.20	0.049	0.160	0.009	0.04
49	4.08	0.20	0.049	0.159	0.009	0.04
50	4.17	0.20	0.049	0.158	0.009	0.04
51	4.25	0.20	0.049	0.158	0.009	0.04
52	4.33	0.23	0.057	0.157	0.010	0.05
53	4.42	0.23	0.057	0.156	0.010	0.05
54	4.50	0.23	0.057	0.156	0.010	0.05
55	4.58	0.23	0.057	0.155	0.010	0.05
56	4.67	0.23	0.057	0.154	0.010	0.05
57	4.75	0.23	0.057	0.154	0.010	0.05
58	4.83	0.27	0.066	0.153	0.012	0.05
59	4.92	0.27	0.066	0.152	0.012	0.05
60	5.00	0.27	0.066	0.152	0.012	0.05
61	5.08	0.20	0.049	0.151	0.009	0.04
62	5.17	0.20	0.049	0.150	0.009	0.04
63	5.25	0.20	0.049	0.150	0.009	0.04
64	5.33	0.23	0.057	0.149	0.010	0.05
65	5.42	0.23	0.057	0.148	0.010	0.05
66	5.50	0.23	0.057	0.148	0.010	0.05
67	5.58	0.27	0.066	0.147	0.012	0.05
68	5.67	0.27	0.066	0.147	0.012	0.05
69	5.75	0.27	0.066	0.146	0.012	0.05
70	5.83	0.27	0.066	0.145	0.012	0.05
71	5.92	0.27	0.066	0.145	0.012	0.05
72	6.00	0.27	0.066	0.144	0.012	0.05
73	6.08	0.30	0.074	0.143	0.013	0.06
74	6.17	0.30	0.074	0.143	0.013	0.06
75	6.25	0.30	0.074	0.142	0.013	0.06
76	6.33	0.30	0.074	0.141	0.013	0.06
77	6.42	0.30	0.074	0.141	0.013	0.06
78	6.50	0.30	0.074	0.140	0.013	0.06
79	6.58	0.33	0.082	0.140	0.015	0.07
80	6.67	0.33	0.082	0.139	0.015	0.07
81	6.75	0.33	0.082	0.138	0.015	0.07
82	6.83	0.33	0.082	0.138	0.015	0.07

83	6.92	0.33	0.082	0.137	0.015	0.07
84	7.00	0.33	0.082	0.136	0.015	0.07
85	7.08	0.33	0.082	0.136	0.015	0.07
86	7.17	0.33	0.082	0.135	0.015	0.07
87	7.25	0.33	0.082	0.135	0.015	0.07
88	7.33	0.37	0.090	0.134	0.016	0.07
89	7.42	0.37	0.090	0.133	0.016	0.07
90	7.50	0.37	0.090	0.133	0.016	0.07
91	7.58	0.40	0.098	0.132	0.018	0.08
92	7.67	0.40	0.098	0.131	0.018	0.08
93	7.75	0.40	0.098	0.131	0.018	0.08
94	7.83	0.43	0.107	0.130	0.019	0.09
95	7.92	0.43	0.107	0.130	0.019	0.09
96	8.00	0.43	0.107	0.129	0.019	0.09
97	8.08	0.50	0.123	0.128	0.022	0.10
98	8.17	0.50	0.123	0.128	0.022	0.10
99	8.25	0.50	0.123	0.127	0.022	0.10
100	8.33	0.50	0.123	0.127	0.022	0.10
101	8.42	0.50	0.123	0.126	0.022	0.10
102	8.50	0.50	0.123	0.125	0.022	0.10
103	8.58	0.53	0.131	0.125	---	0.01
104	8.67	0.53	0.131	0.124	---	0.01
105	8.75	0.53	0.131	0.124	---	0.01
106	8.83	0.57	0.139	0.123	---	0.02
107	8.92	0.57	0.139	0.123	---	0.02
108	9.00	0.57	0.139	0.122	---	0.02
109	9.08	0.63	0.156	0.121	---	0.03
110	9.17	0.63	0.156	0.121	---	0.03
111	9.25	0.63	0.156	0.120	---	0.04
112	9.33	0.67	0.164	0.120	---	0.04
113	9.42	0.67	0.164	0.119	---	0.04
114	9.50	0.67	0.164	0.119	---	0.05
115	9.58	0.70	0.172	0.118	---	0.05
116	9.67	0.70	0.172	0.117	---	0.05
117	9.75	0.70	0.172	0.117	---	0.06
118	9.83	0.73	0.180	0.116	---	0.06
119	9.92	0.73	0.180	0.116	---	0.06
120	10.00	0.73	0.180	0.115	---	0.07
121	10.08	0.50	0.123	0.115	---	0.01
122	10.17	0.50	0.123	0.114	---	0.01
123	10.25	0.50	0.123	0.113	---	0.01
124	10.33	0.50	0.123	0.113	---	0.01
125	10.42	0.50	0.123	0.112	---	0.01
126	10.50	0.50	0.123	0.112	---	0.01
127	10.58	0.67	0.164	0.111	---	0.05
128	10.67	0.67	0.164	0.111	---	0.05
129	10.75	0.67	0.164	0.110	---	0.05
130	10.83	0.67	0.164	0.110	---	0.05
131	10.92	0.67	0.164	0.109	---	0.05
132	11.00	0.67	0.164	0.109	---	0.06
133	11.08	0.63	0.156	0.108	---	0.05
134	11.17	0.63	0.156	0.108	---	0.05
135	11.25	0.63	0.156	0.107	---	0.05
136	11.33	0.63	0.156	0.106	---	0.05
137	11.42	0.63	0.156	0.106	---	0.05
138	11.50	0.63	0.156	0.105	---	0.05
139	11.58	0.57	0.139	0.105	---	0.03
140	11.67	0.57	0.139	0.104	---	0.04
141	11.75	0.57	0.139	0.104	---	0.04
142	11.83	0.60	0.148	0.103	---	0.04
143	11.92	0.60	0.148	0.103	---	0.04
144	12.00	0.60	0.148	0.102	---	0.05
145	12.08	0.83	0.205	0.102	---	0.10

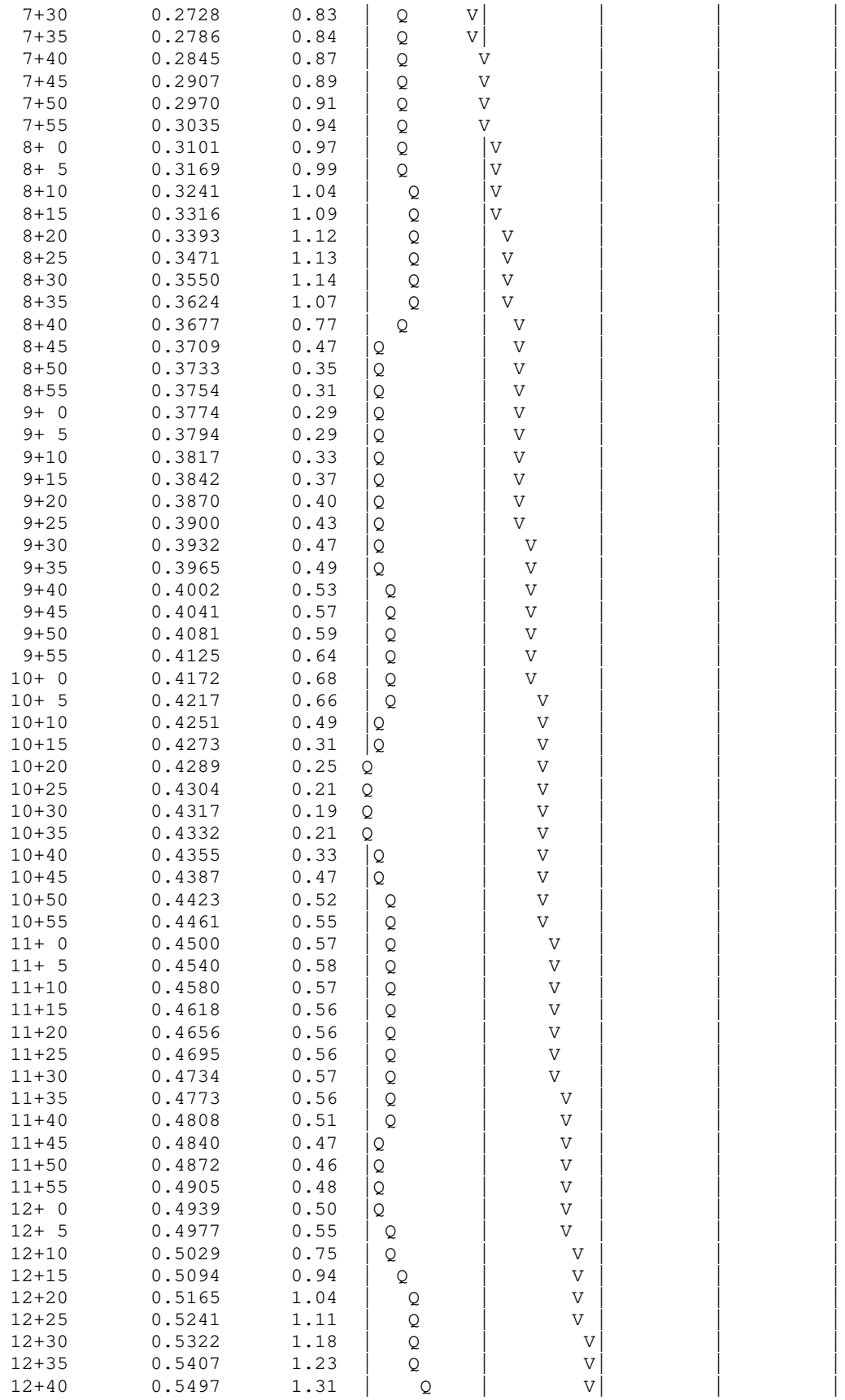
146	12.17	0.83	0.205	0.101	---	0.10
147	12.25	0.83	0.205	0.101	---	0.10
148	12.33	0.87	0.213	0.100	---	0.11
149	12.42	0.87	0.213	0.100	---	0.11
150	12.50	0.87	0.213	0.099	---	0.11
151	12.58	0.93	0.230	0.099	---	0.13
152	12.67	0.93	0.230	0.098	---	0.13
153	12.75	0.93	0.230	0.098	---	0.13
154	12.83	0.97	0.238	0.097	---	0.14
155	12.92	0.97	0.238	0.097	---	0.14
156	13.00	0.97	0.238	0.096	---	0.14
157	13.08	1.13	0.279	0.096	---	0.18
158	13.17	1.13	0.279	0.095	---	0.18
159	13.25	1.13	0.279	0.095	---	0.18
160	13.33	1.13	0.279	0.094	---	0.18
161	13.42	1.13	0.279	0.094	---	0.18
162	13.50	1.13	0.279	0.093	---	0.19
163	13.58	0.77	0.189	0.093	---	0.10
164	13.67	0.77	0.189	0.092	---	0.10
165	13.75	0.77	0.189	0.092	---	0.10
166	13.83	0.77	0.189	0.092	---	0.10
167	13.92	0.77	0.189	0.091	---	0.10
168	14.00	0.77	0.189	0.091	---	0.10
169	14.08	0.90	0.221	0.090	---	0.13
170	14.17	0.90	0.221	0.090	---	0.13
171	14.25	0.90	0.221	0.089	---	0.13
172	14.33	0.87	0.213	0.089	---	0.12
173	14.42	0.87	0.213	0.088	---	0.12
174	14.50	0.87	0.213	0.088	---	0.13
175	14.58	0.87	0.213	0.087	---	0.13
176	14.67	0.87	0.213	0.087	---	0.13
177	14.75	0.87	0.213	0.086	---	0.13
178	14.83	0.83	0.205	0.086	---	0.12
179	14.92	0.83	0.205	0.086	---	0.12
180	15.00	0.83	0.205	0.085	---	0.12
181	15.08	0.80	0.197	0.085	---	0.11
182	15.17	0.80	0.197	0.084	---	0.11
183	15.25	0.80	0.197	0.084	---	0.11
184	15.33	0.77	0.189	0.083	---	0.11
185	15.42	0.77	0.189	0.083	---	0.11
186	15.50	0.77	0.189	0.083	---	0.11
187	15.58	0.63	0.156	0.082	---	0.07
188	15.67	0.63	0.156	0.082	---	0.07
189	15.75	0.63	0.156	0.081	---	0.07
190	15.83	0.63	0.156	0.081	---	0.07
191	15.92	0.63	0.156	0.080	---	0.08
192	16.00	0.63	0.156	0.080	---	0.08
193	16.08	0.13	0.033	0.080	0.006	0.03
194	16.17	0.13	0.033	0.079	0.006	0.03
195	16.25	0.13	0.033	0.079	0.006	0.03
196	16.33	0.13	0.033	0.078	0.006	0.03
197	16.42	0.13	0.033	0.078	0.006	0.03
198	16.50	0.13	0.033	0.078	0.006	0.03
199	16.58	0.10	0.025	0.077	0.004	0.02
200	16.67	0.10	0.025	0.077	0.004	0.02
201	16.75	0.10	0.025	0.076	0.004	0.02
202	16.83	0.10	0.025	0.076	0.004	0.02
203	16.92	0.10	0.025	0.076	0.004	0.02
204	17.00	0.10	0.025	0.075	0.004	0.02
205	17.08	0.17	0.041	0.075	0.007	0.03
206	17.17	0.17	0.041	0.075	0.007	0.03
207	17.25	0.17	0.041	0.074	0.007	0.03
208	17.33	0.17	0.041	0.074	0.007	0.03

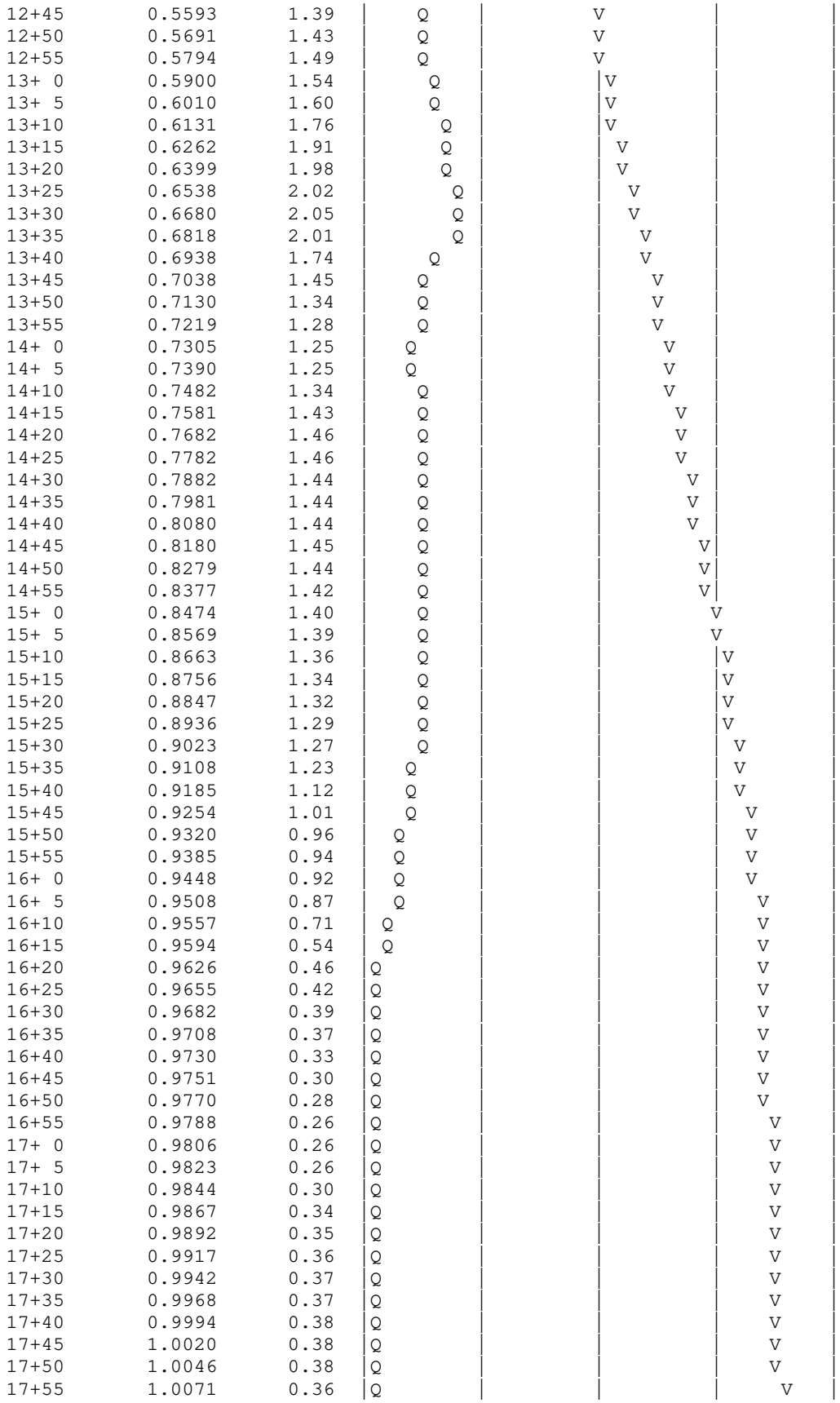
209	17.42	0.17	0.041	0.073	0.007	0.03
210	17.50	0.17	0.041	0.073	0.007	0.03
211	17.58	0.17	0.041	0.073	0.007	0.03
212	17.67	0.17	0.041	0.072	0.007	0.03
213	17.75	0.17	0.041	0.072	0.007	0.03
214	17.83	0.13	0.033	0.072	0.006	0.03
215	17.92	0.13	0.033	0.071	0.006	0.03
216	18.00	0.13	0.033	0.071	0.006	0.03
217	18.08	0.13	0.033	0.071	0.006	0.03
218	18.17	0.13	0.033	0.070	0.006	0.03
219	18.25	0.13	0.033	0.070	0.006	0.03
220	18.33	0.13	0.033	0.070	0.006	0.03
221	18.42	0.13	0.033	0.069	0.006	0.03
222	18.50	0.13	0.033	0.069	0.006	0.03
223	18.58	0.10	0.025	0.069	0.004	0.02
224	18.67	0.10	0.025	0.068	0.004	0.02
225	18.75	0.10	0.025	0.068	0.004	0.02
226	18.83	0.07	0.016	0.068	0.003	0.01
227	18.92	0.07	0.016	0.067	0.003	0.01
228	19.00	0.07	0.016	0.067	0.003	0.01
229	19.08	0.10	0.025	0.067	0.004	0.02
230	19.17	0.10	0.025	0.066	0.004	0.02
231	19.25	0.10	0.025	0.066	0.004	0.02
232	19.33	0.13	0.033	0.066	0.006	0.03
233	19.42	0.13	0.033	0.065	0.006	0.03
234	19.50	0.13	0.033	0.065	0.006	0.03
235	19.58	0.10	0.025	0.065	0.004	0.02
236	19.67	0.10	0.025	0.064	0.004	0.02
237	19.75	0.10	0.025	0.064	0.004	0.02
238	19.83	0.07	0.016	0.064	0.003	0.01
239	19.92	0.07	0.016	0.064	0.003	0.01
240	20.00	0.07	0.016	0.063	0.003	0.01
241	20.08	0.10	0.025	0.063	0.004	0.02
242	20.17	0.10	0.025	0.063	0.004	0.02
243	20.25	0.10	0.025	0.062	0.004	0.02
244	20.33	0.10	0.025	0.062	0.004	0.02
245	20.42	0.10	0.025	0.062	0.004	0.02
246	20.50	0.10	0.025	0.062	0.004	0.02
247	20.58	0.10	0.025	0.061	0.004	0.02
248	20.67	0.10	0.025	0.061	0.004	0.02
249	20.75	0.10	0.025	0.061	0.004	0.02
250	20.83	0.07	0.016	0.061	0.003	0.01
251	20.92	0.07	0.016	0.060	0.003	0.01
252	21.00	0.07	0.016	0.060	0.003	0.01
253	21.08	0.10	0.025	0.060	0.004	0.02
254	21.17	0.10	0.025	0.060	0.004	0.02
255	21.25	0.10	0.025	0.059	0.004	0.02
256	21.33	0.07	0.016	0.059	0.003	0.01
257	21.42	0.07	0.016	0.059	0.003	0.01
258	21.50	0.07	0.016	0.059	0.003	0.01
259	21.58	0.10	0.025	0.059	0.004	0.02
260	21.67	0.10	0.025	0.058	0.004	0.02
261	21.75	0.10	0.025	0.058	0.004	0.02
262	21.83	0.07	0.016	0.058	0.003	0.01
263	21.92	0.07	0.016	0.058	0.003	0.01
264	22.00	0.07	0.016	0.058	0.003	0.01
265	22.08	0.10	0.025	0.057	0.004	0.02
266	22.17	0.10	0.025	0.057	0.004	0.02
267	22.25	0.10	0.025	0.057	0.004	0.02
268	22.33	0.07	0.016	0.057	0.003	0.01
269	22.42	0.07	0.016	0.057	0.003	0.01
270	22.50	0.07	0.016	0.057	0.003	0.01
271	22.58	0.07	0.016	0.056	0.003	0.01

```
272  22.67     0.07      0.016          0.056      0.003          0.01
273  22.75     0.07      0.016          0.056      0.003          0.01
274  22.83     0.07      0.016          0.056      0.003          0.01
275  22.92     0.07      0.016          0.056      0.003          0.01
276  23.00     0.07      0.016          0.056      0.003          0.01
277  23.08     0.07      0.016          0.055      0.003          0.01
278  23.17     0.07      0.016          0.055      0.003          0.01
279  23.25     0.07      0.016          0.055      0.003          0.01
280  23.33     0.07      0.016          0.055      0.003          0.01
281  23.42     0.07      0.016          0.055      0.003          0.01
282  23.50     0.07      0.016          0.055      0.003          0.01
283  23.58     0.07      0.016          0.055      0.003          0.01
284  23.67     0.07      0.016          0.055      0.003          0.01
285  23.75     0.07      0.016          0.055      0.003          0.01
286  23.83     0.07      0.016          0.055      0.003          0.01
287  23.92     0.07      0.016          0.055      0.003          0.01
288  24.00     0.07      0.016          0.055      0.003          0.01
    Sum =     100.0                                      Sum =     14.0
     Flood volume = Effective rainfall      1.17(In)
      times area      11.5(Ac.)/[(In)/(Ft.)] =       1.1(Ac.Ft)
     Total soil loss =      0.88(In)
     Total soil loss =     0.842(Ac.Ft)
     Total rainfall =      2.05(In)
     Flood volume =       48666.4 Cubic Feet
     Total soil loss =       36685.6 Cubic Feet
     ---------------------------------------------------------------------
     Peak flow rate of this hydrograph =      2.054(CFS)
     ---------------------------------------------------------------------
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                    R u n o f f      H y d r o g r a p h
     ---------------------------------------------------------------------
                 Hydrograph in   5   Minute intervals ((CFS))

     ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5       10.0
-------------------------------------------------------------------------
  0+ 5       0.0001      0.01  Q          |         |         |         |
  0+10       0.0004      0.05  Q          |         |         |         |
  0+15       0.0011      0.10  Q          |         |         |         |
  0+20       0.0020      0.12  Q          |         |         |         |
  0+25       0.0030      0.15  Q          |         |         |         |
  0+30       0.0043      0.18  Q          |         |         |         |
  0+35       0.0057      0.20  Q          |         |         |         |
  0+40       0.0071      0.21  Q          |         |         |         |
  0+45       0.0086      0.21  Q          |         |         |         |
  0+50       0.0101      0.22  Q          |         |         |         |
  0+55       0.0118      0.25  Q          |         |         |         |
  1+ 0       0.0137      0.27  VQ         |         |         |         |
  1+ 5       0.0156      0.28  VQ         |         |         |         |
  1+10       0.0175      0.27  VQ         |         |         |         |
  1+15       0.0192      0.25  Q          |         |         |         |
  1+20       0.0209      0.24  Q          |         |         |         |
  1+25       0.0225      0.24  Q          |         |         |         |
  1+30       0.0242      0.24  Q          |         |         |         |
  1+35       0.0258      0.24  Q          |         |         |         |
  1+40       0.0274      0.24  Q          |         |         |         |
  1+45       0.0291      0.24  QV         |         |         |         |
  1+50       0.0307      0.24  QV         |         |         |         |
  1+55       0.0325      0.26  |Q         |         |         |         |
  2+ 0       0.0345      0.28  |Q         |         |         |         |
  2+ 5       0.0365      0.29  |Q         |         |         |         |
  2+10       0.0386      0.30  |Q         |         |         |         |
```

2+15	0.0406	0.30	Q			
2+20	0.0427	0.30	Q			
2+25	0.0448	0.31	Q			
2+30	0.0469	0.31	Q			
2+35	0.0491	0.31	Q			
2+40	0.0514	0.34	Q			
2+45	0.0539	0.36	Q			
2+50	0.0564	0.37	QV			
2+55	0.0590	0.37	QV			
3+ 0	0.0616	0.38	QV			
3+ 5	0.0642	0.38	QV			
3+10	0.0668	0.38	QV			
3+15	0.0695	0.38	QV			
3+20	0.0721	0.39	QV			
3+25	0.0748	0.39	QV			
3+30	0.0775	0.39	QV			
3+35	0.0801	0.39	QV			
3+40	0.0828	0.39	QV			
3+45	0.0855	0.39	Q V			
3+50	0.0882	0.39	Q V			
3+55	0.0911	0.42	Q V			
4+ 0	0.0941	0.44	Q V			
4+ 5	0.0972	0.45	Q V			
4+10	0.1003	0.45	Q V			
4+15	0.1034	0.46	Q V			
4+20	0.1066	0.46	Q V			
4+25	0.1100	0.49	Q V			
4+30	0.1135	0.51	Q V			
4+35	0.1171	0.52	Q V			
4+40	0.1207	0.53	Q V			
4+45	0.1244	0.53	Q V			
4+50	0.1281	0.54	Q V			
4+55	0.1320	0.56	Q V			
5+ 0	0.1361	0.59	Q V			
5+ 5	0.1401	0.59	Q V			
5+10	0.1439	0.55	Q V			
5+15	0.1474	0.51	Q V			
5+20	0.1509	0.50	Q V			
5+25	0.1544	0.51	Q V			
5+30	0.1581	0.53	Q V			
5+35	0.1618	0.54	Q V			
5+40	0.1657	0.57	Q V			
5+45	0.1698	0.59	Q V			
5+50	0.1739	0.60	Q V			
5+55	0.1781	0.61	Q V			
6+ 0	0.1823	0.61	Q V			
6+ 5	0.1866	0.62	Q V			
6+10	0.1910	0.64	Q V			
6+15	0.1956	0.67	Q V			
6+20	0.2002	0.68	Q V			
6+25	0.2050	0.68	Q V			
6+30	0.2097	0.69	Q V			
6+35	0.2145	0.70	Q V			
6+40	0.2194	0.72	Q V			
6+45	0.2246	0.74	Q V			
6+50	0.2298	0.76	Q V			
6+55	0.2350	0.76	Q V			
7+ 0	0.2403	0.77	Q V			
7+ 5	0.2456	0.77	Q V			
7+10	0.2509	0.77	Q V			
7+15	0.2562	0.77	Q V			
7+20	0.2616	0.78	Q V			
7+25	0.2671	0.80	Q V			





18+ 0	1.0094	0.34	|Q	|	|	|	V |
18+ 5	1.0116	0.33	|Q	|	|	|	V |
18+10	1.0139	0.32	|Q	|	|	|	V |
18+15	1.0161	0.32	|Q	|	|	|	V |
18+20	1.0183	0.32	|Q	|	|	|	V |
18+25	1.0205	0.32	|Q	|	|	|	V |
18+30	1.0226	0.32	|Q	|	|	|	V |
18+35	1.0248	0.31	|Q	|	|	|	V |
18+40	1.0267	0.29	|Q	|	|	|	V |
18+45	1.0286	0.26	|Q	|	|	|	V |
18+50	1.0303	0.25	Q	|	|	|	V |
18+55	1.0318	0.22	Q	|	|	|	V |
19+ 0	1.0331	0.19	Q	|	|	|	V |
19+ 5	1.0344	0.19	Q	|	|	|	V |
19+10	1.0358	0.20	Q	|	|	|	V |
19+15	1.0373	0.22	Q	|	|	|	V |
19+20	1.0389	0.23	Q	|	|	|	V |
19+25	1.0407	0.25	|Q	|	|	|	V |
19+30	1.0426	0.28	|Q	|	|	|	V |
19+35	1.0445	0.28	|Q	|	|	|	V |
19+40	1.0464	0.27	|Q	|	|	|	V |
19+45	1.0481	0.25	Q	|	|	|	V |
19+50	1.0497	0.24	Q	|	|	|	V |
19+55	1.0512	0.21	Q	|	|	|	V |
20+ 0	1.0525	0.19	Q	|	|	|	V |
20+ 5	1.0537	0.18	Q	|	|	|	V |
20+10	1.0551	0.20	Q	|	|	|	V |
20+15	1.0566	0.22	Q	|	|	|	V |
20+20	1.0582	0.22	Q	|	|	|	V |
20+25	1.0597	0.23	Q	|	|	|	V |
20+30	1.0613	0.23	Q	|	|	|	V |
20+35	1.0629	0.23	Q	|	|	|	V |
20+40	1.0645	0.23	Q	|	|	|	V |
20+45	1.0661	0.23	Q	|	|	|	V |
20+50	1.0676	0.23	Q	|	|	|	V |
20+55	1.0690	0.20	Q	|	|	|	V |
21+ 0	1.0703	0.18	Q	|	|	|	V |
21+ 5	1.0715	0.18	Q	|	|	|	V |
21+10	1.0729	0.20	Q	|	|	|	V |
21+15	1.0743	0.21	Q	|	|	|	V |
21+20	1.0758	0.22	Q	|	|	|	V |
21+25	1.0772	0.20	Q	|	|	|	V |
21+30	1.0784	0.18	Q	|	|	|	V |
21+35	1.0796	0.18	Q	|	|	|	V |
21+40	1.0810	0.19	Q	|	|	|	V |
21+45	1.0824	0.21	Q	|	|	|	V |
21+50	1.0839	0.21	Q	|	|	|	V |
21+55	1.0853	0.20	Q	|	|	|	V |
22+ 0	1.0865	0.18	Q	|	|	|	V |
22+ 5	1.0877	0.17	Q	|	|	|	V |
22+10	1.0890	0.19	Q	|	|	|	V |
22+15	1.0905	0.21	Q	|	|	|	V|
22+20	1.0919	0.21	Q	|	|	|	V|
22+25	1.0933	0.20	Q	|	|	|	V|
22+30	1.0945	0.18	Q	|	|	|	V|
22+35	1.0957	0.17	Q	|	|	|	V|
22+40	1.0968	0.17	Q	|	|	|	V|
22+45	1.0979	0.16	Q	|	|	|	V|
22+50	1.0990	0.16	Q	|	|	|	V|
22+55	1.1002	0.16	Q	|	|	|	V|
23+ 0	1.1012	0.16	Q	|	|	|	V|
23+ 5	1.1023	0.16	Q	|	|	|	V|
23+10	1.1034	0.16	Q	|	|	|	V|

23+15	1.1045	0.16	Q	|	|	|	V|
23+20	1.1056	0.16	Q	|	|	|	V|
23+25	1.1066	0.16	Q	|	|	|	V|
23+30	1.1077	0.16	Q	|	|	|	V|
23+35	1.1088	0.16	Q	|	|	|	V|
23+40	1.1099	0.16	Q	|	|	|	V|
23+45	1.1109	0.16	Q	|	|	|	V|
23+50	1.1120	0.16	Q	|	|	|	V|
23+55	1.1131	0.16	Q	|	|	|	V|
24+ 0	1.1141	0.16	Q	|	|	|	V|
24+ 5	1.1151	0.15	Q	|	|	|	V|
24+10	1.1158	0.10	Q	|	|	|	V|
24+15	1.1162	0.06	Q	|	|	|	V|
24+20	1.1165	0.04	Q	|	|	|	V|
24+25	1.1167	0.03	Q	|	|	|	V|
24+30	1.1168	0.02	Q	|	|	|	V|
24+35	1.1169	0.02	Q	|	|	|	V|
24+40	1.1170	0.01	Q	|	|	|	V|
24+45	1.1171	0.01	Q	|	|	|	V|
24+50	1.1171	0.01	Q	|	|	|	V|
24+55	1.1172	0.00	Q	|	|	|	V|
25+ 0	1.1172	0.00	Q	|	|	|	V|
25+ 5	1.1172	0.00	Q	|	|	|	V|
25+10	1.1172	0.00	Q	|	|	|	V|
25+15	1.1172	0.00	Q	|	|	|	V|

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
Study date: 08/24/23

CORE5 - ETHANAC BUSINESS PARK
2 YEAR STORM EVENT BASIN ROUTING
5288Q2BR
DS

Program License Serial Number 6145

********** HYDROGRAPH INFORMATION **********

From study/file name: 5288Q2PUH242.rte

**********HYDROGRAPH DATA**********

Number of intervals = 303
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 2.054 (CFS)
Total volume = 1.117 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

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Process from Point/Station 0.000 to Point/Station 0.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 303
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.750	0.058	0.300	0.057	0.059
1.750	0.221	0.300	0.220	0.222
2.750	0.379	0.300	0.378	0.380
3.750	0.526	0.300	0.525	0.527
4.650	0.646	0.300	0.645	0.647
5.750	0.753	19.510	0.686	0.820

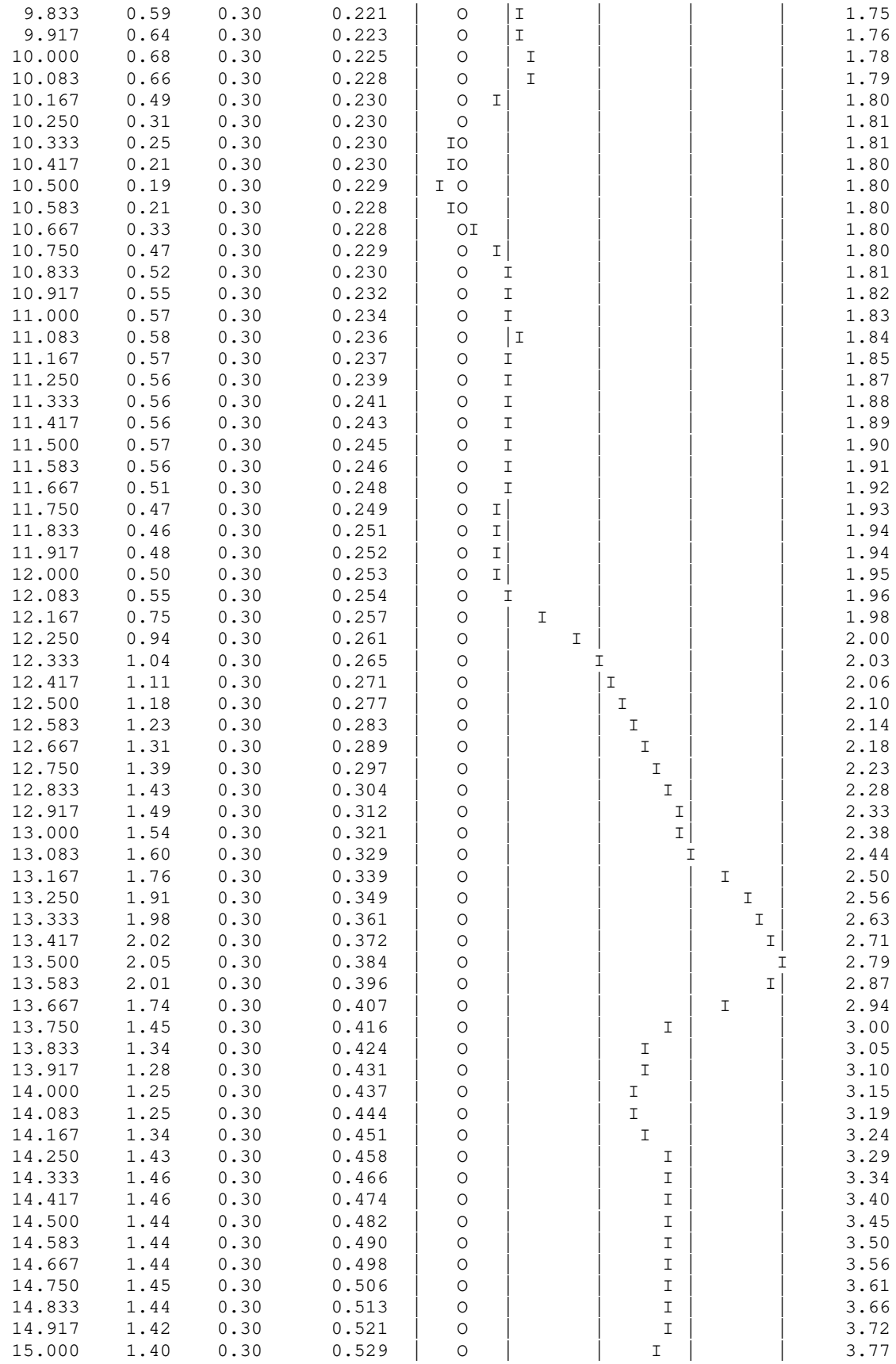
6.750 0.831 50.970 0.655 1.007

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 0.5 1.03 1.54 2.05	Depth (Ft.)
0.083	0.01	0.00	0.000	O	0.00
0.167	0.05	0.00	0.000	O	0.00
0.250	0.10	0.00	0.001	OI	0.01
0.333	0.12	0.01	0.001	OI	0.02
0.417	0.15	0.01	0.002	O I	0.03
0.500	0.18	0.02	0.003	O I	0.04
0.583	0.20	0.02	0.005	O I	0.06
0.667	0.21	0.03	0.006	O I	0.08
0.750	0.21	0.04	0.007	O I	0.09
0.833	0.22	0.04	0.008	O I	0.11
0.917	0.25	0.05	0.010	O I	0.12
1.000	0.27	0.06	0.011	O I	0.14
1.083	0.28	0.06	0.013	O I	0.16
1.167	0.27	0.07	0.014	O I	0.18
1.250	0.25	0.08	0.015	O I	0.20
1.333	0.24	0.08	0.016	O I	0.21
1.417	0.24	0.09	0.017	O I	0.22
1.500	0.24	0.10	0.018	O I	0.24
1.583	0.24	0.10	0.019	O I	0.25
1.667	0.24	0.10	0.020	O I	0.26
1.750	0.24	0.11	0.021	O I	0.27
1.833	0.24	0.11	0.022	O I	0.29
1.917	0.26	0.12	0.023	O I	0.30
2.000	0.28	0.12	0.024	O I	0.31
2.083	0.29	0.13	0.025	O I	0.33
2.167	0.30	0.14	0.026	O I	0.34
2.250	0.30	0.14	0.027	O I	0.35
2.333	0.30	0.15	0.028	O I	0.37
2.417	0.31	0.15	0.030	O I	0.38
2.500	0.31	0.16	0.031	O I	0.40
2.583	0.31	0.16	0.032	O I	0.41
2.667	0.34	0.17	0.033	O I	0.42
2.750	0.36	0.18	0.034	O I	0.44
2.833	0.37	0.18	0.035	O I	0.45
2.917	0.37	0.19	0.036	O I	0.47
3.000	0.38	0.19	0.038	O I	0.49
3.083	0.38	0.20	0.039	O I	0.50
3.167	0.38	0.21	0.040	O I	0.52
3.250	0.38	0.21	0.041	O I	0.53
3.333	0.39	0.22	0.043	O I	0.55
3.417	0.39	0.23	0.044	O I	0.56
3.500	0.39	0.23	0.045	O I	0.58
3.583	0.39	0.24	0.046	O I	0.59
3.667	0.39	0.24	0.047	O I	0.61
3.750	0.39	0.25	0.048	O I	0.62
3.833	0.39	0.25	0.049	O I	0.63
3.917	0.42	0.26	0.050	O I	0.64
4.000	0.44	0.26	0.051	O I	0.66
4.083	0.45	0.27	0.052	O I	0.67
4.167	0.45	0.28	0.053	O I	0.69
4.250	0.46	0.28	0.055	O I	0.71
4.333	0.46	0.29	0.056	O I	0.72
4.417	0.49	0.30	0.057	O I	0.74
4.500	0.51	0.30	0.058	O I	0.75

4.583	0.52	0.30	0.060	O I				0.76
4.667	0.53	0.30	0.061	O I				0.77
4.750	0.53	0.30	0.063	O I				0.78
4.833	0.54	0.30	0.065	O I				0.79
4.917	0.56	0.30	0.066	O I				0.80
5.000	0.59	0.30	0.068	O |I				0.81
5.083	0.59	0.30	0.070	O |I				0.83
5.167	0.55	0.30	0.072	O I				0.84
5.250	0.51	0.30	0.074	O I|				0.85
5.333	0.50	0.30	0.075	O I|				0.86
5.417	0.51	0.30	0.077	O I				0.86
5.500	0.53	0.30	0.078	O I				0.87
5.583	0.54	0.30	0.080	O I				0.88
5.667	0.57	0.30	0.082	O I				0.89
5.750	0.59	0.30	0.083	O |I				0.91
5.833	0.60	0.30	0.086	O |I				0.92
5.917	0.61	0.30	0.088	O |I				0.93
6.000	0.61	0.30	0.090	O |I				0.94
6.083	0.62	0.30	0.092	O |I				0.96
6.167	0.64	0.30	0.094	O | I				0.97
6.250	0.67	0.30	0.097	O | I				0.99
6.333	0.68	0.30	0.099	O | I				1.00
6.417	0.68	0.30	0.102	O | I				1.02
6.500	0.69	0.30	0.104	O | I				1.03
6.583	0.70	0.30	0.107	O | I				1.05
6.667	0.72	0.30	0.110	O | I				1.07
6.750	0.74	0.30	0.113	O | I				1.09
6.833	0.76	0.30	0.116	O | I				1.11
6.917	0.76	0.30	0.119	O | I				1.13
7.000	0.77	0.30	0.122	O | I				1.14
7.083	0.77	0.30	0.126	O | I				1.16
7.167	0.77	0.30	0.129	O | I				1.18
7.250	0.77	0.30	0.132	O | I				1.20
7.333	0.78	0.30	0.135	O | I				1.22
7.417	0.80	0.30	0.139	O | I				1.25
7.500	0.83	0.30	0.142	O | I				1.27
7.583	0.84	0.30	0.146	O | I				1.29
7.667	0.87	0.30	0.150	O | I				1.31
7.750	0.89	0.30	0.154	O | I				1.34
7.833	0.91	0.30	0.158	O | I				1.36
7.917	0.94	0.30	0.162	O | I				1.39
8.000	0.97	0.30	0.167	O | I|				1.42
8.083	0.99	0.30	0.171	O | I|				1.45
8.167	1.04	0.30	0.176	O | I				1.48
8.250	1.09	0.30	0.182	O | |I				1.51
8.333	1.12	0.30	0.187	O | |I				1.54
8.417	1.13	0.30	0.193	O | |I				1.58
8.500	1.14	0.30	0.199	O | |I				1.61
8.583	1.07	0.30	0.204	O | I				1.65
8.667	0.77	0.30	0.208	O | I				1.67
8.750	0.47	0.30	0.211	O I|				1.69
8.833	0.35	0.30	0.211	OI |				1.69
8.917	0.31	0.30	0.212	O |				1.69
9.000	0.29	0.30	0.212	O |				1.69
9.083	0.29	0.30	0.211	O |				1.69
9.167	0.33	0.30	0.212	OI |				1.69
9.250	0.37	0.30	0.212	OI |				1.69
9.333	0.40	0.30	0.212	O I |				1.70
9.417	0.43	0.30	0.213	O I |				1.70
9.500	0.47	0.30	0.214	O I|				1.71
9.583	0.49	0.30	0.216	O I|				1.72
9.667	0.53	0.30	0.217	O I				1.73
9.750	0.57	0.30	0.219	O I				1.74



15.083	1.39	0.30	0.536	O		I		3.83
15.167	1.36	0.30	0.544	O		I		3.88
15.250	1.34	0.30	0.551	O		I		3.94
15.333	1.32	0.30	0.558	O		I		3.99
15.417	1.29	0.30	0.565	O		I		4.04
15.500	1.27	0.30	0.572	O		I		4.09
15.583	1.23	0.30	0.578	O		I		4.14
15.667	1.12	0.30	0.584	O		I		4.19
15.750	1.01	0.30	0.590	O	I			4.23
15.833	0.96	0.30	0.594	O	I			4.26
15.917	0.94	0.30	0.599	O	I			4.30
16.000	0.92	0.30	0.603	O	I			4.33
16.083	0.87	0.30	0.607	O	I			4.36
16.167	0.71	0.30	0.611	O	I			4.39
16.250	0.54	0.30	0.613	O	I			4.40
16.333	0.46	0.30	0.614	O	I			4.41
16.417	0.42	0.30	0.615	O I				4.42
16.500	0.39	0.30	0.616	O I				4.43
16.583	0.37	0.30	0.617	OI				4.43
16.667	0.33	0.30	0.617	OI				4.43
16.750	0.30	0.30	0.617	O				4.43
16.833	0.28	0.30	0.617	O				4.43
16.917	0.26	0.30	0.617	O				4.43
17.000	0.26	0.30	0.616	IO				4.43
17.083	0.26	0.30	0.616	O				4.43
17.167	0.30	0.30	0.616	O				4.43
17.250	0.34	0.30	0.616	OI				4.43
17.333	0.35	0.30	0.616	OI				4.43
17.417	0.36	0.30	0.617	OI				4.43
17.500	0.37	0.30	0.617	OI				4.44
17.583	0.37	0.30	0.618	OI				4.44
17.667	0.38	0.30	0.618	OI				4.44
17.750	0.38	0.30	0.619	OI				4.45
17.833	0.38	0.30	0.619	OI				4.45
17.917	0.36	0.30	0.620	OI				4.45
18.000	0.34	0.30	0.620	OI				4.46
18.083	0.33	0.30	0.620	OI				4.46
18.167	0.32	0.30	0.621	OI				4.46
18.250	0.32	0.30	0.621	O				4.46
18.333	0.32	0.30	0.621	O				4.46
18.417	0.32	0.30	0.621	O				4.46
18.500	0.32	0.30	0.621	O				4.46
18.583	0.31	0.30	0.621	O				4.46
18.667	0.29	0.30	0.621	O				4.46
18.750	0.26	0.30	0.621	O				4.46
18.833	0.25	0.30	0.621	IO				4.46
18.917	0.22	0.30	0.620	IO				4.46
19.000	0.19	0.30	0.620	IO				4.45
19.083	0.19	0.30	0.619	I O				4.45
19.167	0.20	0.30	0.618	IO				4.44
19.250	0.22	0.30	0.618	IO				4.44
19.333	0.23	0.30	0.617	IO				4.43
19.417	0.25	0.30	0.617	IO				4.43
19.500	0.28	0.30	0.616	O				4.43
19.583	0.28	0.30	0.616	O				4.43
19.667	0.27	0.30	0.616	O				4.43
19.750	0.25	0.30	0.616	IO				4.42
19.833	0.24	0.30	0.615	IO				4.42
19.917	0.21	0.30	0.615	IO				4.42
20.000	0.19	0.30	0.614	I O				4.41
20.083	0.18	0.30	0.613	I O				4.41
20.167	0.20	0.30	0.613	IO				4.40
20.250	0.22	0.30	0.612	IO				4.40

20.333	0.22	0.30	0.612	IO				4.39
20.417	0.23	0.30	0.611	IO				4.39
20.500	0.23	0.30	0.611	IO				4.38
20.583	0.23	0.30	0.610	IO				4.38
20.667	0.23	0.30	0.610	IO				4.38
20.750	0.23	0.30	0.609	IO				4.37
20.833	0.23	0.30	0.609	IO				4.37
20.917	0.20	0.30	0.608	IO				4.37
21.000	0.18	0.30	0.607	I O				4.36
21.083	0.18	0.30	0.606	I O				4.35
21.167	0.20	0.30	0.606	IO				4.35
21.250	0.21	0.30	0.605	IO				4.34
21.333	0.22	0.30	0.604	IO				4.34
21.417	0.20	0.30	0.604	IO				4.33
21.500	0.18	0.30	0.603	I O				4.33
21.583	0.18	0.30	0.602	I O				4.32
21.667	0.19	0.30	0.601	IO				4.32
21.750	0.21	0.30	0.601	IO				4.31
21.833	0.21	0.30	0.600	IO				4.31
21.917	0.20	0.30	0.599	IO				4.30
22.000	0.18	0.30	0.599	I O				4.30
22.083	0.17	0.30	0.598	I O				4.29
22.167	0.19	0.30	0.597	I O				4.28
22.250	0.21	0.30	0.596	IO				4.28
22.333	0.21	0.30	0.596	IO				4.27
22.417	0.20	0.30	0.595	IO				4.27
22.500	0.18	0.30	0.594	I O				4.26
22.583	0.17	0.30	0.593	I O				4.26
22.667	0.17	0.30	0.593	I O				4.25
22.750	0.16	0.30	0.592	I O				4.24
22.833	0.16	0.30	0.591	I O				4.23
22.917	0.16	0.30	0.590	I O				4.23
23.000	0.16	0.30	0.589	I O				4.22
23.083	0.16	0.30	0.588	I O				4.21
23.167	0.16	0.30	0.587	I O				4.21
23.250	0.16	0.30	0.586	I O				4.20
23.333	0.16	0.30	0.585	I O				4.19
23.417	0.16	0.30	0.584	I O				4.18
23.500	0.16	0.30	0.583	I O				4.18
23.583	0.16	0.30	0.582	I O				4.17
23.667	0.16	0.30	0.581	I O				4.16
23.750	0.16	0.30	0.580	I O				4.15
23.833	0.16	0.30	0.579	I O				4.15
23.917	0.16	0.30	0.578	I O				4.14
24.000	0.16	0.30	0.577	I O				4.13
24.083	0.15	0.30	0.576	I O				4.12
24.167	0.10	0.30	0.575	I O				4.11
24.250	0.06	0.30	0.573	I O				4.10
24.333	0.04	0.30	0.571	I O				4.09
24.417	0.03	0.30	0.570	I O				4.08
24.500	0.02	0.30	0.568	I O				4.06
24.583	0.02	0.30	0.566	I O				4.05
24.667	0.01	0.30	0.564	I O				4.03
24.750	0.01	0.30	0.562	I O				4.02
24.833	0.01	0.30	0.560	I O				4.00
24.917	0.00	0.30	0.558	I O				3.99
25.000	0.00	0.30	0.556	I O				3.97
25.083	0.00	0.30	0.554	I O				3.96
25.167	0.00	0.30	0.552	I O				3.94
25.250	0.00	0.30	0.549	I O				3.93
25.333	0.00	0.30	0.547	I O				3.91
25.417	0.00	0.30	0.545	I O				3.90
25.500	0.00	0.30	0.543	I O				3.88

25.583	0.00	0.30	0.541	I	O					3.86
25.667	0.00	0.30	0.539	I	O					3.85
25.750	0.00	0.30	0.537	I	O					3.83
25.833	0.00	0.30	0.535	I	O					3.82
25.917	0.00	0.30	0.533	I	O					3.80
26.000	0.00	0.30	0.531	I	O					3.79
26.083	0.00	0.30	0.529	I	O					3.77
26.167	0.00	0.30	0.527	I	O					3.76
26.250	0.00	0.30	0.525	I	O					3.74
26.333	0.00	0.30	0.523	I	O					3.73
26.417	0.00	0.30	0.521	I	O					3.71
26.500	0.00	0.30	0.518	I	O					3.70
26.583	0.00	0.30	0.516	I	O					3.68
26.667	0.00	0.30	0.514	I	O					3.67
26.750	0.00	0.30	0.512	I	O					3.66
26.833	0.00	0.30	0.510	I	O					3.64
26.917	0.00	0.30	0.508	I	O					3.63
27.000	0.00	0.30	0.506	I	O					3.61
27.083	0.00	0.30	0.504	I	O					3.60
27.167	0.00	0.30	0.502	I	O					3.59
27.250	0.00	0.30	0.500	I	O					3.57
27.333	0.00	0.30	0.498	I	O					3.56
27.417	0.00	0.30	0.496	I	O					3.54
27.500	0.00	0.30	0.494	I	O					3.53
27.583	0.00	0.30	0.492	I	O					3.52
27.667	0.00	0.30	0.490	I	O					3.50
27.750	0.00	0.30	0.487	I	O					3.49
27.833	0.00	0.30	0.485	I	O					3.47
27.917	0.00	0.30	0.483	I	O					3.46
28.000	0.00	0.30	0.481	I	O					3.45
28.083	0.00	0.30	0.479	I	O					3.43
28.167	0.00	0.30	0.477	I	O					3.42
28.250	0.00	0.30	0.475	I	O					3.40
28.333	0.00	0.30	0.473	I	O					3.39
28.417	0.00	0.30	0.471	I	O					3.38
28.500	0.00	0.30	0.469	I	O					3.36
28.583	0.00	0.30	0.467	I	O					3.35
28.667	0.00	0.30	0.465	I	O					3.33
28.750	0.00	0.30	0.463	I	O					3.32
28.833	0.00	0.30	0.461	I	O					3.31
28.917	0.00	0.30	0.459	I	O					3.29
29.000	0.00	0.30	0.456	I	O					3.28
29.083	0.00	0.30	0.454	I	O					3.26
29.167	0.00	0.30	0.452	I	O					3.25
29.250	0.00	0.30	0.450	I	O					3.24
29.333	0.00	0.30	0.448	I	O					3.22
29.417	0.00	0.30	0.446	I	O					3.21
29.500	0.00	0.30	0.444	I	O					3.19
29.583	0.00	0.30	0.442	I	O					3.18
29.667	0.00	0.30	0.440	I	O					3.16
29.750	0.00	0.30	0.438	I	O					3.15
29.833	0.00	0.30	0.436	I	O					3.14
29.917	0.00	0.30	0.434	I	O					3.12
30.000	0.00	0.30	0.432	I	O					3.11
30.083	0.00	0.30	0.430	I	O					3.09
30.167	0.00	0.30	0.428	I	O					3.08
30.250	0.00	0.30	0.426	I	O					3.07
30.333	0.00	0.30	0.423	I	O					3.05
30.417	0.00	0.30	0.421	I	O					3.04
30.500	0.00	0.30	0.419	I	O					3.02
30.583	0.00	0.30	0.417	I	O					3.01
30.667	0.00	0.30	0.415	I	O					3.00
30.750	0.00	0.30	0.413	I	O					2.98

30.833	0.00	0.30	0.411	I	O					2.97
30.917	0.00	0.30	0.409	I	O					2.95
31.000	0.00	0.30	0.407	I	O					2.94
31.083	0.00	0.30	0.405	I	O					2.93
31.167	0.00	0.30	0.403	I	O					2.91
31.250	0.00	0.30	0.401	I	O					2.90
31.333	0.00	0.30	0.399	I	O					2.88
31.417	0.00	0.30	0.397	I	O					2.87
31.500	0.00	0.30	0.395	I	O					2.86
31.583	0.00	0.30	0.392	I	O					2.84
31.667	0.00	0.30	0.390	I	O					2.83
31.750	0.00	0.30	0.388	I	O					2.81
31.833	0.00	0.30	0.386	I	O					2.80
31.917	0.00	0.30	0.384	I	O					2.79
32.000	0.00	0.30	0.382	I	O					2.77
32.083	0.00	0.30	0.380	I	O					2.76
32.167	0.00	0.30	0.378	I	O					2.74
32.250	0.00	0.30	0.376	I	O					2.73
32.333	0.00	0.30	0.374	I	O					2.72
32.417	0.00	0.30	0.372	I	O					2.70
32.500	0.00	0.30	0.370	I	O					2.69
32.583	0.00	0.30	0.368	I	O					2.68
32.667	0.00	0.30	0.366	I	O					2.67
32.750	0.00	0.30	0.364	I	O					2.65
32.833	0.00	0.30	0.361	I	O					2.64
32.917	0.00	0.30	0.359	I	O					2.63
33.000	0.00	0.30	0.357	I	O					2.61
33.083	0.00	0.30	0.355	I	O					2.60
33.167	0.00	0.30	0.353	I	O					2.59
33.250	0.00	0.30	0.351	I	O					2.57
33.333	0.00	0.30	0.349	I	O					2.56
33.417	0.00	0.30	0.347	I	O					2.55
33.500	0.00	0.30	0.345	I	O					2.53
33.583	0.00	0.30	0.343	I	O					2.52
33.667	0.00	0.30	0.341	I	O					2.51
33.750	0.00	0.30	0.339	I	O					2.50
33.833	0.00	0.30	0.337	I	O					2.48
33.917	0.00	0.30	0.335	I	O					2.47
34.000	0.00	0.30	0.333	I	O					2.46
34.083	0.00	0.30	0.330	I	O					2.44
34.167	0.00	0.30	0.328	I	O					2.43
34.250	0.00	0.30	0.326	I	O					2.42
34.333	0.00	0.30	0.324	I	O					2.40
34.417	0.00	0.30	0.322	I	O					2.39
34.500	0.00	0.30	0.320	I	O					2.38
34.583	0.00	0.30	0.318	I	O					2.36
34.667	0.00	0.30	0.316	I	O					2.35
34.750	0.00	0.30	0.314	I	O					2.34
34.833	0.00	0.30	0.312	I	O					2.33
34.917	0.00	0.30	0.310	I	O					2.31
35.000	0.00	0.30	0.308	I	O					2.30
35.083	0.00	0.30	0.306	I	O					2.29
35.167	0.00	0.30	0.304	I	O					2.27
35.250	0.00	0.30	0.302	I	O					2.26
35.333	0.00	0.30	0.299	I	O					2.25
35.417	0.00	0.30	0.297	I	O					2.23
35.500	0.00	0.30	0.295	I	O					2.22
35.583	0.00	0.30	0.293	I	O					2.21
35.667	0.00	0.30	0.291	I	O					2.19
35.750	0.00	0.30	0.289	I	O					2.18
35.833	0.00	0.30	0.287	I	O					2.17
35.917	0.00	0.30	0.285	I	O					2.16
36.000	0.00	0.30	0.283	I	O					2.14

36.083	0.00	0.30	0.281	I	O					2.13
36.167	0.00	0.30	0.279	I	O					2.12
36.250	0.00	0.30	0.277	I	O					2.10
36.333	0.00	0.30	0.275	I	O					2.09
36.417	0.00	0.30	0.273	I	O					2.08
36.500	0.00	0.30	0.271	I	O					2.06
36.583	0.00	0.30	0.268	I	O					2.05
36.667	0.00	0.30	0.266	I	O					2.04
36.750	0.00	0.30	0.264	I	O					2.02
36.833	0.00	0.30	0.262	I	O					2.01
36.917	0.00	0.30	0.260	I	O					2.00
37.000	0.00	0.30	0.258	I	O					1.99
37.083	0.00	0.30	0.256	I	O					1.97
37.167	0.00	0.30	0.254	I	O					1.96
37.250	0.00	0.30	0.252	I	O					1.95
37.333	0.00	0.30	0.250	I	O					1.93
37.417	0.00	0.30	0.248	I	O					1.92
37.500	0.00	0.30	0.246	I	O					1.91
37.583	0.00	0.30	0.244	I	O					1.89
37.667	0.00	0.30	0.242	I	O					1.88
37.750	0.00	0.30	0.240	I	O					1.87
37.833	0.00	0.30	0.237	I	O					1.85
37.917	0.00	0.30	0.235	I	O					1.84
38.000	0.00	0.30	0.233	I	O					1.83
38.083	0.00	0.30	0.231	I	O					1.82
38.167	0.00	0.30	0.229	I	O					1.80
38.250	0.00	0.30	0.227	I	O					1.79
38.333	0.00	0.30	0.225	I	O					1.78
38.417	0.00	0.30	0.223	I	O					1.76
38.500	0.00	0.30	0.221	I	O					1.75
38.583	0.00	0.30	0.219	I	O					1.74
38.667	0.00	0.30	0.217	I	O					1.72
38.750	0.00	0.30	0.215	I	O					1.71
38.833	0.00	0.30	0.213	I	O					1.70
38.917	0.00	0.30	0.211	I	O					1.69
39.000	0.00	0.30	0.209	I	O					1.67
39.083	0.00	0.30	0.206	I	O					1.66
39.167	0.00	0.30	0.204	I	O					1.65
39.250	0.00	0.30	0.202	I	O					1.64
39.333	0.00	0.30	0.200	I	O					1.62
39.417	0.00	0.30	0.198	I	O					1.61
39.500	0.00	0.30	0.196	I	O					1.60
39.583	0.00	0.30	0.194	I	O					1.58
39.667	0.00	0.30	0.192	I	O					1.57
39.750	0.00	0.30	0.190	I	O					1.56
39.833	0.00	0.30	0.188	I	O					1.55
39.917	0.00	0.30	0.186	I	O					1.53
40.000	0.00	0.30	0.184	I	O					1.52
40.083	0.00	0.30	0.182	I	O					1.51
40.167	0.00	0.30	0.180	I	O					1.50
40.250	0.00	0.30	0.178	I	O					1.48
40.333	0.00	0.30	0.176	I	O					1.47
40.417	0.00	0.30	0.173	I	O					1.46
40.500	0.00	0.30	0.171	I	O					1.45
40.583	0.00	0.30	0.169	I	O					1.43
40.667	0.00	0.30	0.167	I	O					1.42
40.750	0.00	0.30	0.165	I	O					1.41
40.833	0.00	0.30	0.163	I	O					1.39
40.917	0.00	0.30	0.161	I	O					1.38
41.000	0.00	0.30	0.159	I	O					1.37
41.083	0.00	0.30	0.157	I	O					1.36
41.167	0.00	0.30	0.155	I	O					1.34
41.250	0.00	0.30	0.153	I	O					1.33

41.333	0.00	0.30	0.151	I	O					1.32
41.417	0.00	0.30	0.149	I	O					1.31
41.500	0.00	0.30	0.147	I	O					1.29
41.583	0.00	0.30	0.145	I	O					1.28
41.667	0.00	0.30	0.142	I	O					1.27
41.750	0.00	0.30	0.140	I	O					1.26
41.833	0.00	0.30	0.138	I	O					1.24
41.917	0.00	0.30	0.136	I	O					1.23
42.000	0.00	0.30	0.134	I	O					1.22
42.083	0.00	0.30	0.132	I	O					1.20
42.167	0.00	0.30	0.130	I	O					1.19
42.250	0.00	0.30	0.128	I	O					1.18
42.333	0.00	0.30	0.126	I	O					1.17
42.417	0.00	0.30	0.124	I	O					1.15
42.500	0.00	0.30	0.122	I	O					1.14
42.583	0.00	0.30	0.120	I	O					1.13
42.667	0.00	0.30	0.118	I	O					1.12
42.750	0.00	0.30	0.116	I	O					1.10
42.833	0.00	0.30	0.114	I	O					1.09
42.917	0.00	0.30	0.111	I	O					1.08
43.000	0.00	0.30	0.109	I	O					1.07
43.083	0.00	0.30	0.107	I	O					1.05
43.167	0.00	0.30	0.105	I	O					1.04
43.250	0.00	0.30	0.103	I	O					1.03
43.333	0.00	0.30	0.101	I	O					1.01
43.417	0.00	0.30	0.099	I	O					1.00
43.500	0.00	0.30	0.097	I	O					0.99
43.583	0.00	0.30	0.095	I	O					0.98
43.667	0.00	0.30	0.093	I	O					0.96
43.750	0.00	0.30	0.091	I	O					0.95
43.833	0.00	0.30	0.089	I	O					0.94
43.917	0.00	0.30	0.087	I	O					0.93
44.000	0.00	0.30	0.085	I	O					0.91
44.083	0.00	0.30	0.083	I	O					0.90
44.167	0.00	0.30	0.080	I	O					0.89
44.250	0.00	0.30	0.078	I	O					0.88
44.333	0.00	0.30	0.076	I	O					0.86
44.417	0.00	0.30	0.074	I	O					0.85
44.500	0.00	0.30	0.072	I	O					0.84
44.583	0.00	0.30	0.070	I	O					0.82
44.667	0.00	0.30	0.068	I	O					0.81
44.750	0.00	0.30	0.066	I	O					0.80
44.833	0.00	0.30	0.064	I	O					0.79
44.917	0.00	0.30	0.062	I	O					0.77
45.000	0.00	0.30	0.060	I	O					0.76
45.083	0.00	0.30	0.058	I	O					0.75
45.167	0.00	0.29	0.056	I	O					0.72
45.250	0.00	0.28	0.054	I	O					0.70
45.333	0.00	0.27	0.052	I	O					0.67
45.417	0.00	0.26	0.050	I	O					0.65
45.500	0.00	0.25	0.048	I	O					0.62
45.583	0.00	0.24	0.047	I	O					0.60
45.667	0.00	0.23	0.045	I	O					0.58
45.750	0.00	0.22	0.043	I	O					0.56
45.833	0.00	0.22	0.042	I	O					0.54
45.917	0.00	0.21	0.040	I	O					0.52
46.000	0.00	0.20	0.039	I	O					0.50
46.083	0.00	0.19	0.038	I	O					0.49
46.167	0.00	0.19	0.036	I	O					0.47
46.250	0.00	0.18	0.035	I	O					0.45
46.333	0.00	0.18	0.034	I	O					0.44
46.417	0.00	0.17	0.033	I	O					0.42
46.500	0.00	0.16	0.032	I	O					0.41

46.583	0.00	0.16	0.030	I O				0.39
46.667	0.00	0.15	0.029	I O				0.38
46.750	0.00	0.15	0.028	I O				0.37
46.833	0.00	0.14	0.027	I O				0.35
46.917	0.00	0.14	0.026	I O				0.34
47.000	0.00	0.13	0.025	I O				0.33
47.083	0.00	0.13	0.025	IO				0.32
47.167	0.00	0.12	0.024	IO				0.31
47.250	0.00	0.12	0.023	IO				0.30
47.333	0.00	0.11	0.022	IO				0.29
47.417	0.00	0.11	0.021	IO				0.28
47.500	0.00	0.11	0.021	IO				0.27
47.583	0.00	0.10	0.020	IO				0.26
47.667	0.00	0.10	0.019	IO				0.25
47.750	0.00	0.10	0.018	IO				0.24
47.833	0.00	0.09	0.018	IO				0.23
47.917	0.00	0.09	0.017	IO				0.22
48.000	0.00	0.09	0.017	IO				0.21
48.083	0.00	0.08	0.016	IO				0.21
48.167	0.00	0.08	0.015	IO				0.20
48.250	0.00	0.08	0.015	IO				0.19
48.333	0.00	0.07	0.014	IO				0.19
48.417	0.00	0.07	0.014	IO				0.18
48.500	0.00	0.07	0.013	IO				0.17
48.583	0.00	0.07	0.013	IO				0.17
48.667	0.00	0.06	0.012	IO				0.16
48.750	0.00	0.06	0.012	O				0.16
48.833	0.00	0.06	0.012	O				0.15
48.917	0.00	0.06	0.011	O				0.15
49.000	0.00	0.06	0.011	O				0.14
49.083	0.00	0.05	0.010	O				0.14
49.167	0.00	0.05	0.010	O				0.13
49.250	0.00	0.05	0.010	O				0.13
49.333	0.00	0.05	0.009	O				0.12
49.417	0.00	0.05	0.009	O				0.12
49.500	0.00	0.05	0.009	O				0.11
49.583	0.00	0.04	0.008	O				0.11
49.667	0.00	0.04	0.008	O				0.11
49.750	0.00	0.04	0.008	O				0.10
49.833	0.00	0.04	0.008	O				0.10
49.917	0.00	0.04	0.007	O				0.09
50.000	0.00	0.04	0.007	O				0.09
50.083	0.00	0.04	0.007	O				0.09
50.167	0.00	0.03	0.007	O				0.08
50.250	0.00	0.03	0.006	O				0.08
50.333	0.00	0.03	0.006	O				0.08
50.417	0.00	0.03	0.006	O				0.08
50.500	0.00	0.03	0.006	O				0.07
50.583	0.00	0.03	0.005	O				0.07
50.667	0.00	0.03	0.005	O				0.07
50.750	0.00	0.03	0.005	O				0.07
50.833	0.00	0.03	0.005	O				0.06
50.917	0.00	0.02	0.005	O				0.06
51.000	0.00	0.02	0.005	O				0.06
51.083	0.00	0.02	0.004	O				0.06
51.167	0.00	0.02	0.004	O				0.06
51.250	0.00	0.02	0.004	O				0.05
51.333	0.00	0.02	0.004	O				0.05
51.417	0.00	0.02	0.004	O				0.05
51.500	0.00	0.02	0.004	O				0.05
51.583	0.00	0.02	0.004	O				0.05
51.667	0.00	0.02	0.003	O				0.04
51.750	0.00	0.02	0.003	O				0.04

51.833	0.00	0.02	0.003	O	|	|	|	|	0.04
51.917	0.00	0.02	0.003	O	|	|	|	|	0.04
52.000	0.00	0.02	0.003	O	|	|	|	|	0.04
52.083	0.00	0.01	0.003	O	|	|	|	|	0.04
52.167	0.00	0.01	0.003	O	|	|	|	|	0.04
52.250	0.00	0.01	0.003	O	|	|	|	|	0.03
52.333	0.00	0.01	0.003	O	|	|	|	|	0.03
52.417	0.00	0.01	0.003	O	|	|	|	|	0.03
52.500	0.00	0.01	0.002	O	|	|	|	|	0.03
52.583	0.00	0.01	0.002	O	|	|	|	|	0.03
52.667	0.00	0.01	0.002	O	|	|	|	|	0.03
52.750	0.00	0.01	0.002	O	|	|	|	|	0.03
52.833	0.00	0.01	0.002	O	|	|	|	|	0.03
52.917	0.00	0.01	0.002	O	|	|	|	|	0.03
53.000	0.00	0.01	0.002	O	|	|	|	|	0.03
53.083	0.00	0.01	0.002	O	|	|	|	|	0.02
53.167	0.00	0.01	0.002	O	|	|	|	|	0.02
53.250	0.00	0.01	0.002	O	|	|	|	|	0.02
53.333	0.00	0.01	0.002	O	|	|	|	|	0.02
53.417	0.00	0.01	0.002	O	|	|	|	|	0.02
53.500	0.00	0.01	0.002	O	|	|	|	|	0.02
53.583	0.00	0.01	0.002	O	|	|	|	|	0.02
53.667	0.00	0.01	0.001	O	|	|	|	|	0.02
53.750	0.00	0.01	0.001	O	|	|	|	|	0.02
53.833	0.00	0.01	0.001	O	|	|	|	|	0.02
53.917	0.00	0.01	0.001	O	|	|	|	|	0.02
54.000	0.00	0.01	0.001	O	|	|	|	|	0.02
54.083	0.00	0.01	0.001	O	|	|	|	|	0.02
54.167	0.00	0.01	0.001	O	|	|	|	|	0.02
54.250	0.00	0.01	0.001	O	|	|	|	|	0.01
54.333	0.00	0.01	0.001	O	|	|	|	|	0.01
54.417	0.00	0.01	0.001	O	|	|	|	|	0.01
54.500	0.00	0.01	0.001	O	|	|	|	|	0.01
54.583	0.00	0.01	0.001	O	|	|	|	|	0.01
54.667	0.00	0.00	0.001	O	|	|	|	|	0.01
54.750	0.00	0.00	0.001	O	|	|	|	|	0.01
54.833	0.00	0.00	0.001	O	|	|	|	|	0.01
54.917	0.00	0.00	0.001	O	|	|	|	|	0.01
55.000	0.00	0.00	0.001	O	|	|	|	|	0.01
55.083	0.00	0.00	0.001	O	|	|	|	|	0.01
55.167	0.00	0.00	0.001	O	|	|	|	|	0.01
55.250	0.00	0.00	0.001	O	|	|	|	|	0.01
55.333	0.00	0.00	0.001	O	|	|	|	|	0.01
55.417	0.00	0.00	0.001	O	|	|	|	|	0.01
55.500	0.00	0.00	0.001	O	|	|	|	|	0.01
55.583	0.00	0.00	0.001	O	|	|	|	|	0.01
55.667	0.00	0.00	0.001	O	|	|	|	|	0.01
55.750	0.00	0.00	0.001	O	|	|	|	|	0.01
55.833	0.00	0.00	0.001	O	|	|	|	|	0.01
55.917	0.00	0.00	0.001	O	|	|	|	|	0.01
56.000	0.00	0.00	0.001	O	|	|	|	|	0.01
56.083	0.00	0.00	0.001	O	|	|	|	|	0.01
56.167	0.00	0.00	0.001	O	|	|	|	|	0.01
56.250	0.00	0.00	0.000	O	|	|	|	|	0.01
56.333	0.00	0.00	0.000	O	|	|	|	|	0.01
56.417	0.00	0.00	0.000	O	|	|	|	|	0.01
56.500	0.00	0.00	0.000	O	|	|	|	|	0.01
56.583	0.00	0.00	0.000	O	|	|	|	|	0.01
56.667	0.00	0.00	0.000	O	|	|	|	|	0.01
56.750	0.00	0.00	0.000	O	|	|	|	|	0.01
56.833	0.00	0.00	0.000	O	|	|	|	|	0.00
56.917	0.00	0.00	0.000	O	|	|	|	|	0.00
57.000	0.00	0.00	0.000	O	|	|	|	|	0.00

57.083	0.00	0.00	0.000	O	|	|	|	|	0.00
57.167	0.00	0.00	0.000	O	|	|	|	|	0.00
57.250	0.00	0.00	0.000	O	|	|	|	|	0.00
57.333	0.00	0.00	0.000	O	|	|	|	|	0.00
57.417	0.00	0.00	0.000	O	|	|	|	|	0.00
57.500	0.00	0.00	0.000	O	|	|	|	|	0.00
57.583	0.00	0.00	0.000	O	|	|	|	|	0.00
57.667	0.00	0.00	0.000	O	|	|	|	|	0.00
57.750	0.00	0.00	0.000	O	|	|	|	|	0.00
57.833	0.00	0.00	0.000	O	|	|	|	|	0.00
57.917	0.00	0.00	0.000	O	|	|	|	|	0.00
58.000	0.00	0.00	0.000	O	|	|	|	|	0.00
58.083	0.00	0.00	0.000	O	|	|	|	|	0.00
58.167	0.00	0.00	0.000	O	|	|	|	|	0.00
58.250	0.00	0.00	0.000	O	|	|	|	|	0.00
58.333	0.00	0.00	0.000	O	|	|	|	|	0.00
58.417	0.00	0.00	0.000	O	|	|	|	|	0.00

**********HYDROGRAPH DATA**********

Number of intervals = 701
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.300 (CFS)
Total volume = 1.117 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions in Section G of the WQMP Template):

1. Review Column 1 and identify which of these potential sources of stormwater pollutants apply to your site. Check each box that applies.
2. Review Column 2 and incorporate all of the corresponding applicable BMPs in your WQMP Exhibit.
3. Review Columns 3 and 4 and incorporate all of the corresponding applicable permanent controls and operational BMPs in your WQMP. Use the format shown in Table G.1on page 23 of this WQMP Template. Describe your specific BMPs in an accompanying narrative, and explain any special conditions or situations that required omitting BMPs or substituting alternative BMPs for those shown here.

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
■ A. **On-site storm drain inlets**	■ **Locations of inlets.**	■ **Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.**	■ **Maintain and periodically repaint or replace inlet markings.** ■ **Provide stormwater pollution prevention information to new site owners, lessees, or operators.** ■ **See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** ■ **Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."**
❑ B. **Interior floor drains and elevator shaft sump pumps**		❑ **State that interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.**	❑ **Inspect and maintain drains to prevent blockages and overflow.**
❑ C. **Interior parking garages**		❑ **State that parking garage floor drains will be plumbed to the sanitary sewer.**	❑ **Inspect and maintain drains to prevent blockages and overflow.**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
☐ D1. **Need for future indoor & structural pest control**		☐ **Note building design features that discourage entry of pests.**	☐ **Provide Integrated Pest Management information to owners, lessees, and operators.**
■ D2. **Landscape/ Outdoor Pesticide Use**	☐ **Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained.** N/A ☐ **Show self-retaining landscape areas, if any.** N/A ■ **Show stormwater treatment and hydrograph modification management BMPs. (See instructions in Chapter 3, Step 5 and guidance in Chapter 5.)**	**State that final landscape plans will accomplish all of the following.** ■ **Preserve existing native trees, shrubs, and ground cover to the maximum extent possible.** ■ **Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution.** ■ **Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions.** ■ **Consider using pest-resistant plants, especially adjacent to hardscape.** **To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.**	■ **Maintain landscaping using minimum or no pesticides.** ■ **See applicable operational BMPs in "What you should know for…..Landscape and Gardening"** at http://rcflood.org/stormwater/**Error! Hyperlink reference not valid.** ■ **Provide IPM information to new owners, lessees and operators.**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ E. **Pools, spas, ponds, decorative fountains, and other water features.**	❑ **Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet. (Exception: Public pools must be plumbed according to County Department of Environmental Health Guidelines.)**	**If the Co-Permittee requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.**	❑ **See applicable operational BMPs in** "Guidelines for Maintaining Your Swimming Pool, Jacuzzi and Garden Fountain" at http://rcflood.org/stormwater/
❑ F. **Food service**	❑ **For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment.** ❑ **On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.**	❑ **Describe the location and features of the designated cleaning area.** ❑ **Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.**	❑ **See the brochure, "**The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries" at http://rcflood.org/stormwater/ **Provide this brochure to new site owners, lessees, and operators.**
■ G. **Refuse areas**	■ **Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas.** ■ **If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent run-on and show locations of berms to prevent runoff from the area.** ■ **Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.**	■ **State how site refuse will be handled and provide supporting detail to what is shown on plans.** ■ **State that signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.**	■ **State how the following will be implemented:** **Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ H. **Industrial processes.**	❑ **Show process area.**	❑ **If industrial processes are to be located on site, state: "All process activities to be performed indoors. No processes to drain to exterior or to storm drain system."**	❑ **See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** See the brochure "Industrial & Commercial Facilities Best Management Practices for: Industrial, Commercial Facilities" at http://rcflood.org/stormwater/

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ I. **Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)**	❑ **Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area.** ❑ **Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults.** ❑ **Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site.**	**Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains.** **Where appropriate, reference documentation of compliance with the requirements of Hazardous Materials Programs for:** ▪ **Hazardous Waste Generation** ▪ **Hazardous Materials Release Response and Inventory** ▪ **California Accidental Release (CalARP)** ▪ **Aboveground Storage Tank** ▪ **Uniform Fire Code Article 80 Section 103(b) & (c) 1991** ▪ **Underground Storage Tank** **www.cchealth.org/groups/hazmat/**	❑ **See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials " in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ J. **Vehicle and Equipment Cleaning**	❑ **Show on drawings as appropriate:** **(1) Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses.** **(2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use).** **(3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer.** **(4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed.**	❑ **If a car wash area is not provided, describe any measures taken to discourage on-site car washing and explain how these will be enforced.**	**Describe operational measures to implement the following (if applicable):** ❑ **Washwater from vehicle and equipment washing operations shall not be discharged to the storm drain system.** Refer to "Outdoor Cleaning Activities and Professional Mobile Service Providers" for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/ ❑ **Car dealerships and similar may rinse cars with water only.**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ K. **Vehicle/Equipment Repair and Maintenance**	❑ **Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater.** ❑ **Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas.** ❑ **Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained.**	❑ **State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area.** ❑ **State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.** ❑ **State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.**	**In the Stormwater Control Plan, note that all of the following restrictions apply to use the site:** ❑ **No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains.** ❑ **No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately.** ❑ **No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment.** Refer to "Automotive Maintenance & Car Care Best Management Practices for Auto Body Shops, Auto Repair Shops, Car Dealerships, Gas Stations and Fleet Service Operations". Brochure can be found at http://rcflood.org/stormwater/ Refer to Outdoor Cleaning Activities and Professional Mobile Service Providers for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ L. **Fuel Dispensing Areas**	❑ **Fueling areas[6] shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable.** ❑ **Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area[1].] The canopy [or cover] shall not drain onto the fueling area.**		❑ **The property owner shall dry sweep the fueling area routinely.** ❑ **See the Fact Sheet SD-30 , "Fueling Areas" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**

[6] **The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
■ M. **Loading Docks**	■ **Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer, or diverted and collected for ultimate discharge to the sanitary sewer.** ■ **Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation.** ■ **Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer.**		■ **Move loaded and unloaded items indoors as soon as possible.** ■ **See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
■ N. **Fire Sprinkler Test Water**		■ **Provide a means to drain fire sprinkler test water to the sanitary sewer.**	■ **See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**
O. **Miscellaneous Drain or Wash Water or Other Sources** ❑ **Boiler drain lines** ❑ **Condensate drain lines** ❑ **Rooftop equipment** ❑ **Drainage sumps** ■ **Roofing, gutters, and trim.** ❑ **Other sources**		❑ **Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system.** ❑ **Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system.** ❑ **Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment.** ❑ **Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water.** ■ **Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff.** **Include controls for other sources as specified by local reviewer.**	

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
■ P. **Plazas, sidewalks, and parking lots.**			■ **Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.**

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

This section will be completed and addressed at the time of the final WQMP submittal

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

Drain Inserts MP-52

Description

Drain inserts are manufactured filters or fabric placed in a drop inlet to remove sediment and debris. There are a multitude of inserts of various shapes and configurations, typically falling into one of three different groups: socks, boxes, and trays. The sock consists of a fabric, usually constructed of polypropylene. The fabric may be attached to a frame or the grate of the inlet holds the sock. Socks are meant for vertical (drop) inlets. Boxes are constructed of plastic or wire mesh. Typically a polypropylene "bag" is placed in the wire mesh box. The bag takes the form of the box. Most box products are one box; that is, the setting area and filtration through media occur in the same box. Some products consist of one or more trays or mesh grates. The trays may hold different types of media. Filtration media vary by manufacturer. Types include polypropylene, porous polymer, treated cellulose, and activated carbon.

California Experience

The number of installations is unknown but likely exceeds a thousand. Some users have reported that these systems require considerable maintenance to prevent plugging and bypass.

Advantages

- Does not require additional space as inserts as the drain inlets are already a component of the standard drainage systems.
- Easy access for inspection and maintenance.
- As there is no standing water, there is little concern for mosquito breeding.
- A relatively inexpensive retrofit option.

Limitations

Performance is likely significantly less than treatment systems that are located at the end of the drainage system such as ponds and vaults. Usually not suitable for large areas or areas with trash or leaves than can plug the insert.

Design and Sizing Guidelines

Refer to manufacturer's guidelines. Drain inserts come any many configurations but can be placed into three general groups: socks, boxes, and trays. The sock consists of a fabric, usually constructed of polypropylene. The fabric may be attached to a frame or the grate of the inlet holds the sock. Socks are meant for vertical (drop) inlets. Boxes are constructed of plastic or wire mesh. Typically a polypropylene "bag" is placed in the wire mesh box. The bag takes the form of the box. Most box products are

Design Considerations

- Use with other BMPs
- Fit and Seal Capacity within Inlet

Targeted Constituents

- ✓ Sediment
- ✓ Nutrients
- ✓ Trash
- ✓ Metals
- Bacteria
- ✓ Oil and Grease
- ✓ Organics

Removal Effectiveness

See New Development and Redevelopment Handbook-Section 5.

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one box; that is, the setting area and filtration through media occurs in the same box. One manufacturer has a double-box. Stormwater enters the first box where setting occurs. The stormwater flows into the second box where the filter media is located. Some products consist of one or more trays or mesh grates. The trays can hold different types of media. Filtration media vary with the manufacturer: types include polypropylene, porous polymer, treated cellulose, and activated carbon.

Construction/Inspection Considerations

Be certain that installation is done in a manner that makes certain that the stormwater enters the unit and does not leak around the perimeter. Leakage between the frame of the insert and the frame of the drain inlet can easily occur with vertical (drop) inlets.

Performance

Few products have performance data collected under field conditions.

Siting Criteria

It is recommended that inserts be used only for retrofit situations or as pretreatment where other treatment BMPs presented in this section area used.

Additional Design Guidelines

Follow guidelines provided by individual manufacturers.

Maintenance

Likely require frequent maintenance, on the order of several times per year.

Cost

- The initial cost of individual inserts ranges from less than $100 to about $2,000. The cost of using multiple units in curb inlet drains varies with the size of the inlet.
- The low cost of inserts may tend to favor the use of these systems over other, more effective treatment BMPs. However, the low cost of each unit may be offset by the number of units that are required, more frequent maintenance, and the shorter structural life (and therefore replacement).

References and Sources of Additional Information

Hrachovec, R., and G. Minton, 2001, Field testing of a sock-type catch basin insert, Planet CPR, Seattle, Washington

Interagency Catch Basin Insert Committee, Evaluation of Commercially-Available Catch Basin Inserts for the Treatment of Stormwater Runoff from Developed Sites, 1995

Larry Walker Associates, June 1998, NDMP Inlet/In-Line Control Measure Study Report

Manufacturers literature

Santa Monica (City), Santa Monica Bay Municipal Stormwater/Urban Runoff Project - Evaluation of Potential Catch basin Retrofits, Woodward Clyde, September 24, 1998

Woodward Clyde, June 11, 1996, Parking Lot Monitoring Report, Santa Clara Valley Nonpoint Source Pollution Control Program.

Outdoor Loading/Unloading SC-30

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Description

The loading/unloading of materials usually takes place outside on docks or terminals; therefore, materials spilled, leaked, or lost during loading/unloading may collect in the soil or on other surfaces and have the potential to be carried away by stormwater runoff or when the area is cleaned. Additionally, rainfall may wash pollutants from machinery used to unload or move materials. Implementation of the following protocols will prevent or reduce the discharge of pollutants to stormwater from outdoor loading/unloading of materials.

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Keep accurate maintenance logs to evaluate materials removed and improvements made.
- Park tank trucks or delivery vehicles in designated areas so that spills or leaks can be contained.
- Limit exposure of material to rainfall whenever possible.
- Prevent stormwater run-on.
- Check equipment regularly for leaks.

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Suggested Protocols

Loading and Unloading – General Guidelines

- Develop an operations plan that describes procedures for loading and/or unloading.
- Conduct loading and unloading in dry weather if possible.
- Cover designated loading/unloading areas to reduce exposure of materials to rain.
- Consider placing a seal or door skirt between delivery vehicles and building to prevent exposure to rain.
- Design loading/unloading area to prevent stormwater run-on, which would include grading or berming the area, and position roof downspouts so they direct stormwater away from the loading/unloading areas.
- Have employees load and unload all materials and equipment in covered areas such as building overhangs at loading docks if feasible.
- Load/unload only at designated loading areas.
- Use drip pans underneath hose and pipe connections and other leak-prone spots during liquid transfer operations, and when making and breaking connections. Several drip pans should be stored in a covered location near the liquid transfer area so that they are always available, yet protected from precipitation when not in use. Drip pans can be made specifically for railroad tracks. Drip pans must be cleaned periodically, and drip collected materials must be disposed of properly.
- Pave loading areas with concrete instead of asphalt.
- Avoid placing storm drains in the area.
- Grade and/or berm the loading/unloading area to a drain that is connected to a deadend.

Inspection

- Check loading and unloading equipment regularly for leaks, including valves, pumps, flanges and connections.
- Look for dust or fumes during loading or unloading operations.

Training

- Train employees (e.g., fork lift operators) and contractors on proper spill containment and cleanup.
- Have employees trained in spill containment and cleanup present during loading/unloading.
- Train employees in proper handling techniques during liquid transfers to avoid spills.
- Make sure forklift operators are properly trained on loading and unloading procedures.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Contain leaks during transfer.
- Store and maintain appropriate spill cleanup materials in a location that is readily accessible and known to all and ensure that employees are familiar with the site's spill control plan and proper spill cleanup procedures.
- Have an emergency spill cleanup plan readily available.
- Use drip pans or comparable devices when transferring oils, solvents, and paints.

Other Considerations (Limitations and Regulations)

- Space and time limitations may preclude all transfers from being performed indoors or under cover.
- It may not be possible to conduct transfers only during dry weather.

Requirements

Costs

Costs should be low except when covering a large loading/unloading area.

Maintenance

- Conduct regular inspections and make repairs as necessary. The frequency of repairs will depend on the age of the facility.
- Check loading and unloading equipment regularly for leaks.
- Conduct regular broom dry-sweeping of area.

Supplemental Information

Further Detail of the BMP

Special Circumstances for Indoor Loading/Unloading of Materials

Loading or unloading of liquids should occur in the manufacturing building so that any spills that are not completely retained can be discharged to the sanitary sewer, treatment plant, or treated in a manner consistent with local sewer authorities and permit requirements.

- For loading and unloading tank trucks to above and below ground storage tanks, the following procedures should be used:
  - The area where the transfer takes place should be paved. If the liquid is reactive with the asphalt, Portland cement should be used to pave the area.
  - The transfer area should be designed to prevent run-on of stormwater from adjacent areas. Sloping the pad and using a curb, like a speed bump, around the uphill side of the transfer area should reduce run-on.

- The transfer area should be designed to prevent runoff of spilled liquids from the area. Sloping the area to a drain should prevent runoff. The drain should be connected to a dead-end sump or to the sanitary sewer. A positive control valve should be installed on the drain.

- For transfer from rail cars to storage tanks that must occur outside, use the following procedures:

  - Drip pans should be placed at locations where spillage may occur, such as hose connections, hose reels, and filler nozzles. Use drip pans when making and breaking connections.

  - Drip pan systems should be installed between the rails to collect spillage from tank cars.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Waste Handling & Disposal SC-34

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Description

Improper storage and handling of solid wastes can allow toxic compounds, oils and greases, heavy metals, nutrients, suspended solids, and other pollutants to enter stormwater runoff. The discharge of pollutants to stormwater from waste handling and disposal can be prevented and reduced by tracking waste generation, storage, and disposal; reducing waste generation and disposal through source reduction, re-use, and recycling; and preventing runon and runoff.

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	☑
Oil and Grease	☑
Organics	☑
Oxygen Demanding	☑

Approach

Pollution Prevention

- Reduction in the amount of waste generated can be accomplished using the following source controls such as:
  - Production planning and sequencing
  - Process or equipment modification
  - Raw material substitution or elimination
  - Loss prevention and housekeeping
  - Waste segregation and separation
  - Close loop recycling
- Establish a material tracking system to increase awareness about material usage. This may reduce spills and minimize contamination, thus reducing the amount of waste produced.
- Recycle materials whenever possible.

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Suggested Protocols

General

- Cover storage containers with leak proof lids or some other means. If waste is not in containers, cover all waste piles (plastic tarps are acceptable coverage) and prevent stormwater runon and runoff with a berm. The waste containers or piles must be covered except when in use.
- Use drip pans or absorbent materials whenever grease containers are emptied by vacuum trucks or other means. Grease cannot be left on the ground. Collected grease must be properly disposed of as garbage.
- Check storage containers weekly for leaks and to ensure that lids are on tightly. Replace any that are leaking, corroded, or otherwise deteriorating.
- Sweep and clean the storage area regularly. If it is paved, do not hose down the area to a storm drain.
- Dispose of rinse and wash water from cleaning waste containers into a sanitary sewer if allowed by the local sewer authority. Do not discharge wash water to the street or storm drain.
- Transfer waste from damaged containers into safe containers.
- Take special care when loading or unloading wastes to minimize losses. Loading systems can be used to minimize spills and fugitive emission losses such as dust or mist. Vacuum transfer systems can minimize waste loss.

Controlling Litter

- Post "No Littering" signs and enforce anti-litter laws.
- Provide a sufficient number of litter receptacles for the facility.
- Clean out and cover litter receptacles frequently to prevent spillage.

Waste Collection

- Keep waste collection areas clean.
- Inspect solid waste containers for structural damage or leaks regularly. Repair or replace damaged containers as necessary.
- Secure solid waste containers; containers must be closed tightly when not in use.
- Place waste containers under cover if possible.
- Do not fill waste containers with washout water or any other liquid.
- Ensure that only appropriate solid wastes are added to the solid waste container. Certain wastes such as hazardous wastes, appliances, fluorescent lamps, pesticides, etc. may not be

disposed of in solid waste containers (see chemical/ hazardous waste collection section below).

- Do not mix wastes; this can cause chemical reactions, make recycling impossible, and complicate disposal.

Good Housekeeping

- Use all of the product before disposing of the container.
- Keep the waste management area clean at all times by sweeping and cleaning up spills immediately.
- Use dry methods when possible (e.g. sweeping, use of absorbents) when cleaning around restaurant/food handling dumpster areas. If water must be used after sweeping/using absorbents, collect water and discharge through grease interceptor to the sewer.
- Stencil storm drains on the facility's property with prohibitive message regarding waste disposal.

Chemical/Hazardous Wastes

- Select designated hazardous waste collection areas on-site.
- Store hazardous materials and wastes in covered containers protected from vandalism, and in compliance with fire and hazardous waste codes.
- Place hazardous waste containers in secondary containment.
- Make sure that hazardous waste is collected, removed, and disposed of only at authorized disposal areas.

Runon/Runoff Prevention

- Prevent stormwater runon from entering the waste management area by enclosing the area or building a berm around the area.
- Prevent the waste materials from directly contacting rain.
- Cover waste piles with temporary covering material such as reinforced tarpaulin, polyethylene, polyurethane, polypropyleneor hypalon.
- Cover the area with a permanent roof if feasible.
- Cover dumpsters to prevent rain from washing waste out of holes or cracks in the bottom of the dumpster.
- Move the activity indoor after ensuring all safety concerns such as fire hazard and ventilation are addressed.

Inspection

- Inspect and replace faulty pumps or hoses regularly to minimize the potential of releases and spills.
- Check waste management areas for leaking containers or spills.
- Repair leaking equipment including valves, lines, seals, or pumps promptly.

Training

- Train staff pollution prevention measures and proper disposal methods.
- Train employees and contractors proper spill containment and cleanup. The employee should have the tools and knowledge to immediately begin cleaning up a spill if one should occur.
- Train employees and subcontractors in proper hazardous waste management.

Spill Response and Prevention

- Refer to SC-11, Spill Prevention, Control & Cleanup.
- Keep your Spill Prevention Control and countermeasure (SPCC) plan up-to-date, and implement accordingly.
- Have spill cleanup materials readily available and in a known location.
- Cleanup spills immediately and use dry methods if possible.
- Properly dispose of spill cleanup material.
- Vehicles transporting waste should have spill prevention equipment that can prevent spills during transport. The spill prevention equipment includes:
  - Vehicles equipped with baffles for liquid waste
  - Trucks with sealed gates and spill guards for solid waste

Other Considerations

- Hazardous waste cannot be re-used or recycled; it must be disposed of by a licensed hazardous waste hauler.

Requirements

Costs

- Capital and operation and maintenance costs will vary substantially depending on the size of the facility and the types of waste handled. Costs should be low if there is an inventory program in place.

Maintenance

- None except for maintaining equipment for material tracking program.

Supplemental Information

Further Detail of the BMP

Land Treatment System

- Minimize the runoff of polluted stormwater from land application of municipal waste on-site by:
  - Choosing a site where slopes are under 6%, the soil is permeable, there is a low water table, it is located away from wetlands or marshes, there is a closed drainage system.
  - Avoiding application of waste to the site when it is raining or when the ground is saturated with water.
  - Growing vegetation on land disposal areas to stabilize soils and reduce the volume of surface water runoff from the site.
  - Maintaining adequate barriers between the land application site and the receiving waters. Planted strips are particularly good.
  - Using erosion control techniques such as mulching and matting, filter fences, straw bales, diversion terracing, and sediment basins.
  - Performing routine maintenance to ensure the erosion control or site stabilization measures are working.

References and Resources

King County Stormwater Pollution Control Manual - http://dnr.metrokc.gov/wlr/dss/spcm.htm

Orange County Stormwater Program
http://www.ocwatersheds.com/StormWater/swp_introduction.asp

Pollution from Surface Cleaning Folder. 1996. Bay Area Stormwater Management Agencies Associations (BASMAA). On-line: http://www.basmaa.org

Building & Grounds Maintenance SC-41

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	
Metals	✓
Bacteria	✓
Oil and Grease	
Organics	

Description

Stormwater runoff from building and grounds maintenance activities can be contaminated with toxic hydrocarbons in solvents, fertilizers and pesticides, suspended solids, heavy metals, abnormal pH, and oils and greases. Utilizing the protocols in this fact sheet will prevent or reduce the discharge of pollutants to stormwater from building and grounds maintenance activities by washing and cleaning up with as little water as possible, following good landscape management practices, preventing and cleaning up spills immediately, keeping debris from entering the storm drains, and maintaining the stormwater collection system.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Switch to non-toxic chemicals for maintenance when possible.
- Choose cleaning agents that can be recycled.
- Encourage proper lawn management and landscaping, including use of native vegetation.

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- Encourage use of Integrated Pest Management techniques for pest control.
- Encourage proper onsite recycling of yard trimmings.
- Recycle residual paints, solvents, lumber, and other material as much as possible.

Suggested Protocols

Pressure Washing of Buildings, Rooftops, and Other Large Objects

- In situations where soaps or detergents are used and the surrounding area is paved, pressure washers must use a water collection device that enables collection of wash water and associated solids. A sump pump, wet vacuum or similarly effective device must be used to collect the runoff and loose materials. The collected runoff and solids must be disposed of properly.
- If soaps or detergents are not used, and the surrounding area is paved, wash runoff does not have to be collected but must be screened. Pressure washers must use filter fabric or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff.
- If you are pressure washing on a grassed area (with or without soap), runoff must be dispersed as sheet flow as much as possible, rather than as a concentrated stream. The wash runoff must remain on the grass and not drain to pavement.

Landscaping Activities

- Dispose of grass clippings, leaves, sticks, or other collected vegetation as garbage, or by composting. Do not dispose of collected vegetation into waterways or storm drainage systems.
- Use mulch or other erosion control measures on exposed soils.

Building Repair, Remodeling, and Construction

- Do not dump any toxic substance or liquid waste on the pavement, the ground, or toward a storm drain.
- Use ground or drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly dispose of collected material daily.
- Use a ground cloth or oversized tub for activities such as paint mixing and tool cleaning.
- Clean paintbrushes and tools covered with water-based paints in sinks connected to sanitary sewers or in portable containers that can be dumped into a sanitary sewer drain. Brushes and tools covered with non-water-based paints, finishes, or other materials must be cleaned in a manner that enables collection of used solvents (e.g., paint thinner, turpentine, etc.) for recycling or proper disposal.
- Use a storm drain cover, filter fabric, or similarly effective runoff control mechanism if dust, grit, wash water, or other pollutants may escape the work area and enter a catch basin. This is particularly necessary on rainy days. The containment device(s) must be in place at the beginning of the work day, and accumulated dirty runoff and solids must be collected and disposed of before removing the containment device(s) at the end of the work day.

- If you need to de-water an excavation site, you may need to filter the water before discharging to a catch basin or off-site. If directed off-site, you should direct the water through hay bales and filter fabric or use other sediment filters or traps.
- Store toxic material under cover during precipitation events and when not in use. A cover would include tarps or other temporary cover material.

Mowing, Trimming, and Planting

- Dispose of leaves, sticks, or other collected vegetation as garbage, by composting or at a permitted landfill. Do not dispose of collected vegetation into waterways or storm drainage systems.
- Use mulch or other erosion control measures when soils are exposed.
- Place temporarily stockpiled material away from watercourses and drain inlets, and berm or cover stockpiles to prevent material releases to the storm drain system.
- Consider an alternative approach when bailing out muddy water: do not put it in the storm drain; pour over landscaped areas.
- Use hand weeding where practical.

Fertilizer and Pesticide Management

- Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of fertilizers and pesticides and training of applicators and pest control advisors.
- Use less toxic pesticides that will do the job when applicable. Avoid use of copper-based pesticides if possible.
- Do not use pesticides if rain is expected.
- Do not mix or prepare pesticides for application near storm drains.
- Use the minimum amount needed for the job.
- Calibrate fertilizer distributors to avoid excessive application.
- Employ techniques to minimize off-target application (e.g., spray drift) of pesticides, including consideration of alternative application techniques.
- Apply pesticides only when wind speeds are low.
- Fertilizers should be worked into the soil rather than dumped or broadcast onto the surface.
- Irrigate slowly to prevent runoff and then only as much as is needed.
- Clean pavement and sidewalk if fertilizer is spilled on these surfaces before applying irrigation water.
- Dispose of empty pesticide containers according to the instructions on the container label.

- Use up the pesticides. Rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.
- Implement storage requirements for pesticide products with guidance from the local fire department and County Agricultural Commissioner. Provide secondary containment for pesticides.

Inspection

- Inspect irrigation system periodically to ensure that the right amount of water is being applied and that excessive runoff is not occurring. Minimize excess watering and repair leaks in the irrigation system as soon as they are observed.

Training

- Educate and train employees on pesticide use and in pesticide application techniques to prevent pollution.
- Train employees and contractors in proper techniques for spill containment and cleanup.
- Be sure the frequency of training takes into account the complexity of the operations and the nature of the staff.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Place a stockpile of spill cleanup materials, such as brooms, dustpans, and vacuum sweepers (if desired) near the storage area where it will be readily accessible.
- Have employees trained in spill containment and cleanup present during the loading/unloading of dangerous wastes, liquid chemicals, or other materials.
- Familiarize employees with the Spill Prevention Control and Countermeasure Plan.
- Clean up spills immediately.

Other Considerations

Alternative pest/weed controls may not be available, suitable, or effective in many cases.

Requirements

Costs

- Cost will vary depending on the type and size of facility.
- Overall costs should be low in comparison to other BMPs.

Maintenance

Sweep paved areas regularly to collect loose particles. Wipe up spills with rags and other absorbent material immediately, do not hose down the area to a storm drain.

Supplemental Information

Further Detail of the BMP

Fire Sprinkler Line Flushing

Building fire sprinkler line flushing may be a source of non-stormwater runoff pollution. The water entering the system is usually potable water, though in some areas it may be non-potable reclaimed wastewater. There are subsequent factors that may drastically reduce the quality of the water in such systems. Black iron pipe is usually used since it is cheaper than potable piping, but it is subject to rusting and results in lower quality water. Initially, the black iron pipe has an oil coating to protect it from rusting between manufacture and installation; this will contaminate the water from the first flush but not from subsequent flushes. Nitrates, poly-phosphates and other corrosion inhibitors, as well as fire suppressants and antifreeze may be added to the sprinkler water system. Water generally remains in the sprinkler system a long time (typically a year) and between flushes may accumulate iron, manganese, lead, copper, nickel, and zinc. The water generally becomes anoxic and contains living and dead bacteria and breakdown products from chlorination. This may result in a significant BOD problem and the water often smells. Consequently dispose fire sprinkler line flush water into the sanitary sewer. Do not allow discharge to storm drain or infiltration due to potential high levels of pollutants in fire sprinkler line water.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

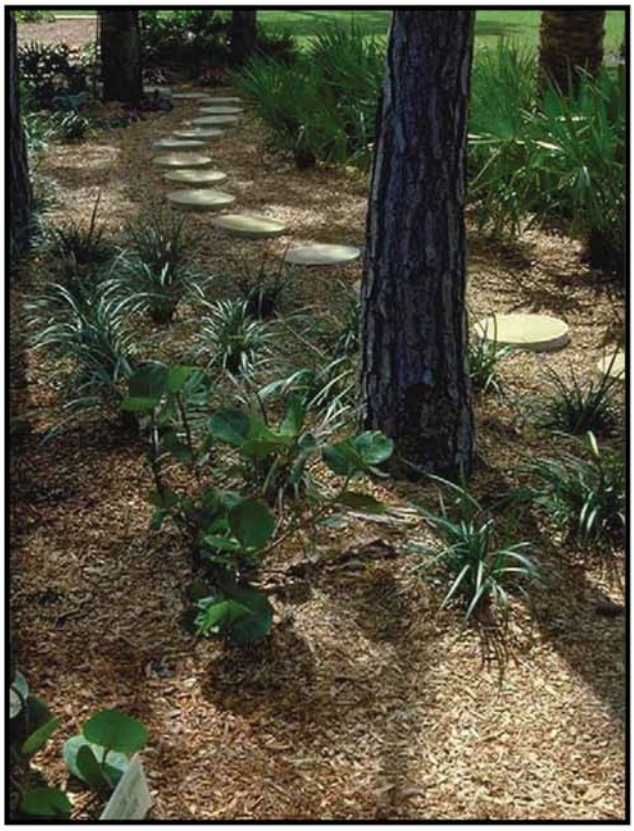
Mobile Cleaners Pilot Program: Final Report. 1997. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Pollution from Surface Cleaning Folder. 1996. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Site Design & Landscape Planning SD-10



Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- ☑ Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Each project site possesses unique topographic, hydrologic, and vegetative features, some of which are more suitable for development than others. Integrating and incorporating appropriate landscape planning methodologies into the project design is the most effective action that can be done to minimize surface and groundwater contamination from stormwater.

Approach

Landscape planning should couple consideration of land suitability for urban uses with consideration of community goals and projected growth. Project plan designs should conserve natural areas to the extent possible, maximize natural water storage and infiltration opportunities, and protect slopes and channels.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment.

Design Considerations

Design requirements for site design and landscapes planning should conform to applicable standards and specifications of agencies with jurisdiction and be consistent with applicable General Plan and Local Area Plan policies.

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Designing New Installations

Begin the development of a plan for the landscape unit with attention to the following general principles:

- Formulate the plan on the basis of clearly articulated community goals. Carefully identify conflicts and choices between retaining and protecting desired resources and community growth.

- Map and assess land suitability for urban uses. Include the following landscape features in the assessment: wooded land, open unwooded land, steep slopes, erosion-prone soils, foundation suitability, soil suitability for waste disposal, aquifers, aquifer recharge areas, wetlands, floodplains, surface waters, agricultural lands, and various categories of urban land use. When appropriate, the assessment can highlight outstanding local or regional resources that the community determines should be protected (e.g., a scenic area, recreational area, threatened species habitat, farmland, fish run). Mapping and assessment should recognize not only these resources but also additional areas needed for their sustenance.

Project plan designs should conserve natural areas to the extent possible, maximize natural water storage and infiltration opportunities, and protect slopes and channels.

Conserve Natural Areas during Landscape Planning

If applicable, the following items are required and must be implemented in the site layout during the subdivision design and approval process, consistent with applicable General Plan and Local Area Plan policies:

- Cluster development on least-sensitive portions of a site while leaving the remaining land in a natural undisturbed condition.

- Limit clearing and grading of native vegetation at a site to the minimum amount needed to build lots, allow access, and provide fire protection.

- Maximize trees and other vegetation at each site by planting additional vegetation, clustering tree areas, and promoting the use of native and/or drought tolerant plants.

- Promote natural vegetation by using parking lot islands and other landscaped areas.

- Preserve riparian areas and wetlands.

Maximize Natural Water Storage and Infiltration Opportunities Within the Landscape Unit

- Promote the conservation of forest cover. Building on land that is already deforested affects basin hydrology to a lesser extent than converting forested land. Loss of forest cover reduces interception storage, detention in the organic forest floor layer, and water losses by evapotranspiration, resulting in large peak runoff increases and either their negative effects or the expense of countering them with structural solutions.

- Maintain natural storage reservoirs and drainage corridors, including depressions, areas of permeable soils, swales, and intermittent streams. Develop and implement policies and

regulations to discourage the clearing, filling, and channelization of these features. Utilize them in drainage networks in preference to pipes, culverts, and engineered ditches.

- Evaluating infiltration opportunities by referring to the stormwater management manual for the jurisdiction and pay particular attention to the selection criteria for avoiding groundwater contamination, poor soils, and hydrogeological conditions that cause these facilities to fail. If necessary, locate developments with large amounts of impervious surfaces or a potential to produce relatively contaminated runoff away from groundwater recharge areas.

Protection of Slopes and Channels during Landscape Design

- Convey runoff safely from the tops of slopes.
- Avoid disturbing steep or unstable slopes.
- Avoid disturbing natural channels.
- Stabilize disturbed slopes as quickly as possible.
- Vegetate slopes with native or drought tolerant vegetation.
- Control and treat flows in landscaping and/or other controls prior to reaching existing natural drainage systems.
- Stabilize temporary and permanent channel crossings as quickly as possible, and ensure that increases in run-off velocity and frequency caused by the project do not erode the channel.
- Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion. Energy dissipaters shall be installed in such a way as to minimize impacts to receiving waters.
- Line on-site conveyance channels where appropriate, to reduce erosion caused by increased flow velocity due to increases in tributary impervious area. The first choice for linings should be grass or some other vegetative surface, since these materials not only reduce runoff velocities, but also provide water quality benefits from filtration and infiltration. If velocities in the channel are high enough to erode grass or other vegetative linings, riprap, concrete, soil cement, or geo-grid stabilization are other alternatives.
- Consider other design principles that are comparable and equally effective.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Redevelopment may present significant opportunity to add features which had not previously been implemented. Examples include incorporation of depressions, areas of permeable soils, and swales in newly redeveloped areas. While some site constraints may exist due to the status of already existing infrastructure, opportunities should not be missed to maximize infiltration, slow runoff, reduce impervious areas, disconnect directly connected impervious areas.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Stormwater Management Manual for Western Washington, Washington State Department of Ecology, August 2001.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Roof Runoff Controls SD-11

Rain Garden

Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Description

Various roof runoff controls are available to address stormwater that drains off rooftops. The objective is to reduce the total volume and rate of runoff from individual lots, and retain the pollutants on site that may be picked up from roofing materials and atmospheric deposition. Roof runoff controls consist of directing the roof runoff away from paved areas and mitigating flow to the storm drain system through one of several general approaches: cisterns or rain barrels; dry wells or infiltration trenches; pop-up emitters, and foundation planting. The first three approaches require the roof runoff to be contained in a gutter and downspout system. Foundation planting provides a vegetated strip under the drip line of the roof.

Approach

Design of individual lots for single-family homes as well as lots for higher density residential and commercial structures should consider site design provisions for containing and infiltrating roof runoff or directing roof runoff to vegetative swales or buffer areas. Retained water can be reused for watering gardens, lawns, and trees. Benefits to the environment include reduced demand for potable water used for irrigation, improved stormwater quality, increased groundwater recharge, decreased runoff volume and peak flows, and decreased flooding potential.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment.

Design Considerations

Designing New Installations

Cisterns or Rain Barrels

One method of addressing roof runoff is to direct roof downspouts to cisterns or rain barrels. A cistern is an above ground storage vessel with either a manually operated valve or a permanently open outlet. Roof runoff is temporarily stored and then released for irrigation or infiltration between storms. The number of rain

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barrels needed is a function of the rooftop area. Some low impact developers recommend that every house have at least 2 rain barrels, with a minimum storage capacity of 1000 liters. Roof barrels serve several purposes including mitigating the first flush from the roof which has a high volume, amount of contaminants, and thermal load. Several types of rain barrels are commercially available. Consideration must be given to selecting rain barrels that are vector proof and childproof. In addition, some barrels are designed with a bypass valve that filters out grit and other contaminants and routes overflow to a soak-away pit or rain garden.

If the cistern has an operable valve, the valve can be closed to store stormwater for irrigation or infiltration between storms. This system requires continual monitoring by the resident or grounds crews, but provides greater flexibility in water storage and metering. If a cistern is provided with an operable valve and water is stored inside for long periods, the cistern must be covered to prevent mosquitoes from breeding.

A cistern system with a permanently open outlet can also provide for metering stormwater runoff. If the cistern outlet is significantly smaller than the size of the downspout inlet (say ¼ to ½ inch diameter), runoff will build up inside the cistern during storms, and will empty out slowly after peak intensities subside. This is a feasible way to mitigate the peak flow increases caused by rooftop impervious land coverage, especially for the frequent, small storms.

Dry wells and Infiltration Trenches

Roof downspouts can be directed to dry wells or infiltration trenches. A dry well is constructed by excavating a hole in the ground and filling it with an open graded aggregate, and allowing the water to fill the dry well and infiltrate after the storm event. An underground connection from the downspout conveys water into the dry well, allowing it to be stored in the voids. To minimize sedimentation from lateral soil movement, the sides and top of the stone storage matrix can be wrapped in a permeable filter fabric, though the bottom may remain open. A perforated observation pipe can be inserted vertically into the dry well to allow for inspection and maintenance.

In practice, dry wells receiving runoff from single roof downspouts have been successful over long periods because they contain very little sediment. They must be sized according to the amount of rooftop runoff received, but are typically 4 to 5 feet square, and 2 to 3 feet deep, with a minimum of 1-foot soil cover over the top (maximum depth of 10 feet).

To protect the foundation, dry wells must be set away from the building at least 10 feet. They must be installed in solids that accommodate infiltration. In poorly drained soils, dry wells have very limited feasibility.

Infiltration trenches function in a similar manner and would be particularly effective for larger roof areas. An infiltration trench is a long, narrow, rock-filled trench with no outlet that receives stormwater runoff. These are described under Treatment Controls.

Pop-up Drainage Emitter

Roof downspouts can be directed to an underground pipe that daylights some distance from the building foundation, releasing the roof runoff through a pop-up emitter. Similar to a pop-up irrigation head, the emitter only opens when there is flow from the roof. The emitter remains flush to the ground during dry periods, for ease of lawn or landscape maintenance.

Foundation Planting

Landscape planting can be provided around the base to allow increased opportunities for stormwater infiltration and protect the soil from erosion caused by concentrated sheet flow coming off the roof. Foundation plantings can reduce the physical impact of water on the soil and provide a subsurface matrix of roots that encourage infiltration. These plantings must be sturdy enough to tolerate the heavy runoff sheet flows, and periodic soil saturation.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Supplemental Information

Examples

- City of Ottawa's Water Links Surface –Water Quality Protection Program
- City of Toronto Downspout Disconnection Program
- City of Boston, MA, Rain Barrel Demonstration Program

Other Resources

Hager, Marty Catherine, Stormwater, "Low-Impact Development", January/February 2003. www.stormh2o.com

Low Impact Urban Design Tools, Low Impact Development Design Center, Beltsville, MD. www.lid-stormwater.net

Start at the Source, Bay Area Stormwater Management Agencies Association, 1999 Edition

Efficient Irrigation SD-12

Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Irrigation water provided to landscaped areas may result in excess irrigation water being conveyed into stormwater drainage systems.

Approach

Project plan designs for development and redevelopment should include application methods of irrigation water that minimize runoff of excess irrigation water into the stormwater conveyance system.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Designing New Installations

The following methods to reduce excessive irrigation runoff should be considered, and incorporated and implemented where determined applicable and feasible by the Permittee:

- Employ rain-triggered shutoff devices to prevent irrigation after precipitation.
- Design irrigation systems to each landscape area's specific water requirements.
- Include design featuring flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.
- Implement landscape plans consistent with County or City water conservation resolutions, which may include provision of water sensors, programmable irrigation times (for short cycles), etc.

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- Design timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the storm water drainage system.
- Group plants with similar water requirements in order to reduce excess irrigation runoff and promote surface filtration. Choose plants with low irrigation requirements (for example, native or drought tolerant species). Consider design features such as:
  - Using mulches (such as wood chips or bar) in planter areas without ground cover to minimize sediment in runoff
  - Installing appropriate plant materials for the location, in accordance with amount of sunlight and climate, and use native plant materials where possible and/or as recommended by the landscape architect
  - Leaving a vegetative barrier along the property boundary and interior watercourses, to act as a pollutant filter, where appropriate and feasible
  - Choosing plants that minimize or eliminate the use of fertilizer or pesticides to sustain growth
- Employ other comparable, equally effective methods to reduce irrigation water runoff.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Storm Drain Signage SD-13

Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- ☑ Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Waste materials dumped into storm drain inlets can have severe impacts on receiving and ground waters. Posting notices regarding discharge prohibitions at storm drain inlets can prevent waste dumping. Storm drain signs and stencils are highly visible source controls that are typically placed directly adjacent to storm drain inlets.

Approach

The stencil or affixed sign contains a brief statement that prohibits dumping of improper materials into the urban runoff conveyance system. Storm drain messages have become a popular method of alerting the public about the effects of and the prohibitions against waste disposal.

Suitable Applications

Stencils and signs alert the public to the destination of pollutants discharged to the storm drain. Signs are appropriate in residential, commercial, and industrial areas, as well as any other area where contributions or dumping to storm drains is likely.

Design Considerations

Storm drain message markers or placards are recommended at all storm drain inlets within the boundary of a development project. The marker should be placed in clear sight facing toward anyone approaching the inlet from either side. All storm drain inlet locations should be identified on the development site map.

Designing New Installations

The following methods should be considered for inclusion in the project design and show on project plans:

- Provide stenciling or labeling of all storm drain inlets and catch basins, constructed or modified, within the project area with prohibitive language. Examples include "NO DUMPING

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– DRAINS TO OCEAN" and/or other graphical icons to discourage illegal dumping.

- Post signs with prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the project area.

Note - Some local agencies have approved specific signage and/or storm drain message placards for use. Consult local agency stormwater staff to determine specific requirements for placard types and methods of application.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. If the project meets the definition of "redevelopment", then the requirements stated under " designing new installations" above should be included in all project design plans.

Additional Information

Maintenance Considerations

- Legibility of markers and signs should be maintained. If required by the agency with jurisdiction over the project, the owner/operator or homeowner's association should enter into a maintenance agreement with the agency or record a deed restriction upon the property title to maintain the legibility of placards or signs.

Placement

- Signage on top of curbs tends to weather and fade.

- Signage on face of curbs tends to be worn by contact with vehicle tires and sweeper brooms.

Supplemental Information

Examples

- Most MS4 programs have storm drain signage programs. Some MS4 programs will provide stencils, or arrange for volunteers to stencil storm drains as part of their outreach program.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Maintenance Bays & Docks SD-31

Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- ☑ Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Description

Several measures can be taken to prevent operations at maintenance bays and loading docks from contributing a variety of toxic compounds, oil and grease, heavy metals, nutrients, suspended solids, and other pollutants to the stormwater conveyance system.

Approach

In designs for maintenance bays and loading docks, containment is encouraged. Preventative measures include overflow containment structures and dead-end sumps. However, in the case of loading docks from grocery stores and warehouse/distribution centers, engineered infiltration systems may be considered.

Suitable Applications

Appropriate applications include commercial and industrial areas planned for development or redevelopment.

Design Considerations

Design requirements for vehicle maintenance and repair are governed by Building and Fire Codes, and by current local agency ordinances, and zoning requirements. The design criteria described in this fact sheet are meant to enhance and be consistent with these code requirements.

Designing New Installations

Designs of maintenance bays should consider the following:

- Repair/maintenance bays and vehicle parts with fluids should be indoors; or designed to preclude urban run-on and runoff.
- Repair/maintenance floor areas should be paved with Portland cement concrete (or equivalent smooth impervious surface).

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- Repair/maintenance bays should be designed to capture all wash water leaks and spills. Provide impermeable berms, drop inlets, trench catch basins, or overflow containment structures around repair bays to prevent spilled materials and wash-down waters form entering the storm drain system. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local jurisdiction, obtain an Industrial Waste Discharge Permit.
- Other features may be comparable and equally effective.

The following designs of loading/unloading dock areas should be considered:

- Loading dock areas should be covered, or drainage should be designed to preclude urban run-on and runoff.
- Direct connections into storm drains from depressed loading docks (truck wells) are prohibited.
- Below-grade loading docks from grocery stores and warehouse/distribution centers of fresh food items should drain through water quality inlets, or to an engineered infiltration system, or an equally effective alternative. Pre-treatment may also be required.
- Other features may be comparable and equally effective.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Additional Information

Stormwater and non-stormwater will accumulate in containment areas and sumps with impervious surfaces. Contaminated accumulated water must be disposed of in accordance with applicable laws and cannot be discharged directly to the storm drain or sanitary sewer system without the appropriate permit.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Trash Storage Areas SD-32

Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Description

Trash storage areas are areas where a trash receptacle (s) are located for use as a repository for solid wastes. Stormwater runoff from areas where trash is stored or disposed of can be polluted. In addition, loose trash and debris can be easily transported by water or wind into nearby storm drain inlets, channels, and/or creeks. Waste handling operations that may be sources of stormwater pollution include dumpsters, litter control, and waste piles.

Approach

This fact sheet contains details on the specific measures required to prevent or reduce pollutants in stormwater runoff associated with trash storage and handling. Preventative measures including enclosures, containment structures, and impervious pavements to mitigate spills, should be used to reduce the likelihood of contamination.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Design requirements for waste handling areas are governed by Building and Fire Codes, and by current local agency ordinances and zoning requirements. The design criteria described in this fact sheet are meant to enhance and be consistent with these code and ordinance requirements. Hazardous waste should be handled in accordance with legal requirements established in Title 22, California Code of Regulation.

Wastes from commercial and industrial sites are typically hauled by either public or commercial carriers that may have design or access requirements for waste storage areas. The design criteria in this fact sheet are recommendations and are not intended to be in conflict with requirements established by the waste hauler. The waste hauler should be contacted prior to the design of your site trash collection areas. Conflicts or issues should be discussed with the local agency.

Designing New Installations

Trash storage areas should be designed to consider the following structural or treatment control BMPs:

- Design trash container areas so that drainage from adjoining roofs and pavement is diverted around the area(s) to avoid run-on. This might include berming or grading the waste handling area to prevent run-on of stormwater.
- Make sure trash container areas are screened or walled to prevent off-site transport of trash.

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- Use lined bins or dumpsters to reduce leaking of liquid waste.
- Provide roofs, awnings, or attached lids on all trash containers to minimize direct precipitation and prevent rainfall from entering containers.
- Pave trash storage areas with an impervious surface to mitigate spills.
- Do not locate storm drains in immediate vicinity of the trash storage area.
- Post signs on all dumpsters informing users that hazardous materials are not to be disposed of therein.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Additional Information

Maintenance Considerations

The integrity of structural elements that are subject to damage (i.e., screens, covers, and signs) must be maintained by the owner/operator. Maintenance agreements between the local agency and the owner/operator may be required. Some agencies will require maintenance deed restrictions to be recorded of the property title. If required by the local agency, maintenance agreements or deed restrictions must be executed by the owner/operator before improvement plans are approved.

Other Resources

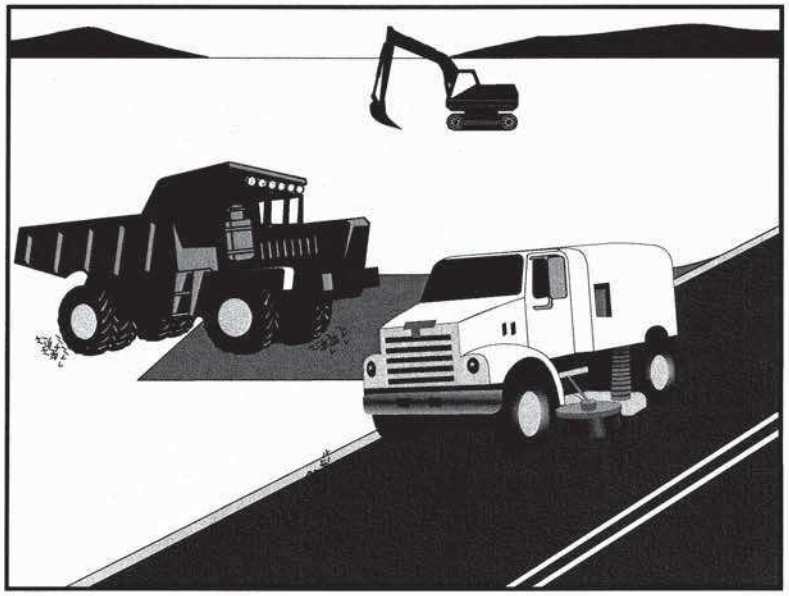
A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Street Sweeping and Vacuuming SE-7



Categories

EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	☑
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	☑
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

Description and Purpose

Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways, and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

Suitable Applications

Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

Limitations

Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).

Implementation

- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused, and perhaps save money.
- Inspect potential sediment tracking locations daily.
- Visible sediment tracking should be swept or vacuumed on a daily basis.
- Do not use kick brooms or sweeper attachments. These tend to spread the dirt rather than remove it.

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- If not mixed with debris or trash, consider incorporating the removed sediment back into the project

Costs

Rental rates for self-propelled sweepers vary depending on hopper size and duration of rental. Expect rental rates from $58/hour (3 yd^3 hopper) to $88/hour (9 yd^3 hopper), plus operator costs. Hourly production rates vary with the amount of area to be swept and amount of sediment. Match the hopper size to the area and expect sediment load to minimize time spent dumping.

Inspection and Maintenance

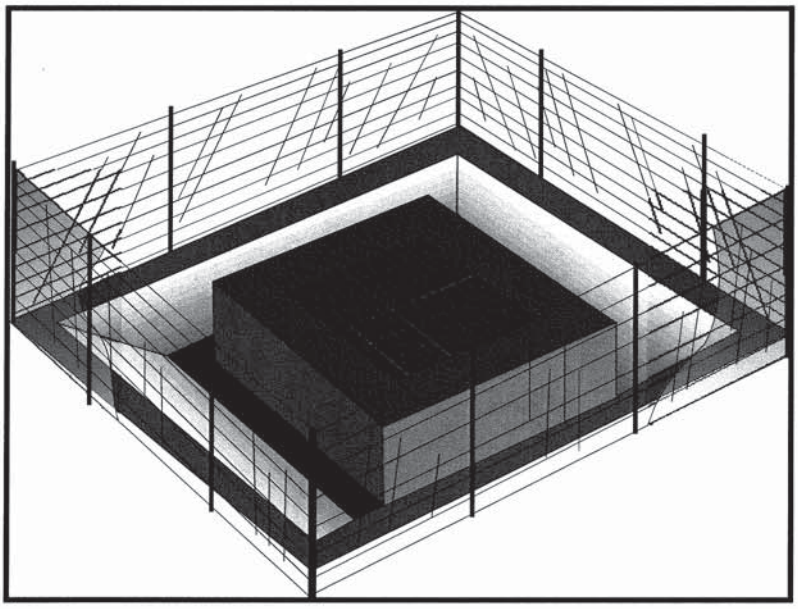
- Inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- When actively in use, points of ingress and egress must be inspected daily.
- When tracked or spilled sediment is observed outside the construction limits, it must be removed at least daily. More frequent removal, even continuous removal, may be required in some jurisdictions.
- Be careful not to sweep up any unknown substance or any object that may be potentially hazardous.
- Adjust brooms frequently; maximize efficiency of sweeping operations.
- After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Labor Surcharge and Equipment Rental Rates, State of California Department of Transportation (Caltrans), April 1, 2002 – March 31, 2003.

Storm Drain Inlet Protection SE-10



Categories

EC	Erosion Control	
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	☒
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence

SE-5 Fiber Rolls

SE-6 Gravel Bag Berm

SE-8 Sandbag Barrier

SE-14 Biofilter Bags

Description and Purpose

Storm drain inlet protection consists of a sediment filter or an impounding area in, around or upstream of a storm drain, drop inlet, or curb inlet. Storm drain inlet protection measures temporarily pond runoff before it enters the storm drain, allowing sediment to settle. Some filter configurations also remove sediment by filtering, but usually the ponding action results in the greatest sediment reduction. Temporary geotextile storm drain inserts attach underneath storm drain grates to capture and filter storm water.

Suitable Applications

Every storm drain inlet receiving runoff from unstabilized or otherwise active work areas should be protected. Inlet protection should be used in conjunction with other erosion and sediment controls to prevent sediment-laden stormwater and non-stormwater discharges from entering the storm drain system.

Limitations

- Drainage area should not exceed 1 acre.
- In general straw bales should not be used as inlet protection.
- Requires an adequate area for water to pond without encroaching into portions of the roadway subject to traffic.

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- Sediment removal may be inadequate to prevent sediment discharges in high flow conditions or if runoff is heavily sediment laden. If high flow conditions are expected, use other onsite sediment trapping techniques in conjunction with inlet protection.
- Frequent maintenance is required.
- Limit drainage area to 1 acre maximum. For drainage areas larger than 1 acre, runoff should be routed to a sediment-trapping device designed for larger flows. See BMPs SE-2, Sediment Basin, and SE-3, Sediment Traps.
- Excavated drop inlet sediment traps are appropriate where relatively heavy flows are expected, and overflow capability is needed.

Implementation

General

Inlet control measures presented in this handbook should not be used for inlets draining more than one acre. Runoff from larger disturbed areas should be first routed through SE-2, Sediment Basin or SE-3, Sediment Trap and/or used in conjunction with other drainage control, erosion control, and sediment control BMPs to protect the site. Different types of inlet protection are appropriate for different applications depending on site conditions and the type of inlet. Alternative methods are available in addition to the methods described/shown herein such as prefabricated inlet insert devices, or gutter protection devices.

Design and Layout

Identify existing and planned storm drain inlets that have the potential to receive sediment-laden surface runoff. Determine if storm drain inlet protection is needed and which method to use.

- The key to successful and safe use of storm drain inlet protection devices is to know where runoff that is directed toward the inlet to be protected will pond or be diverted as a result of installing the protection device.
  - Determine the acceptable location and extent of ponding in the vicinity of the drain inlet. The acceptable location and extent of ponding will influence the type and design of the storm drain inlet protection device.
  - Determine the extent of potential runoff diversion caused by the storm drain inlet protection device. Runoff ponded by inlet protection devices may flow around the device and towards the next downstream inlet. In some cases, this is acceptable; in other cases, serious erosion or downstream property damage can be caused by these diversions. The possibility of runoff diversions will influence whether or not storm drain inlet protection is suitable; and, if suitable, the type and design of the device.
- The location and extent of ponding, and the extent of diversion, can usually be controlled through appropriate placement of the inlet protection device. In some cases, moving the inlet protection device a short distance upstream of the actual inlet can provide more efficient sediment control, limit ponding to desired areas, and prevent or control diversions.

- Six types of inlet protection are presented below. However, it is recognized that other effective methods and proprietary devices exist and may be selected.
  - Silt Fence: Appropriate for drainage basins with less than a 5% slope, sheet flows, and flows under 0.5 cfs.
  - Excavated Drop Inlet Sediment Trap: An excavated area around the inlet to trap sediment (SE-3).
  - Gravel bag barrier: Used to create a small sediment trap upstream of inlets on sloped, paved streets. Appropriate for sheet flow or when concentrated flow may exceed 0.5 cfs, and where overtopping is required to prevent flooding.
  - Block and Gravel Filter: Appropriate for flows greater than 0.5 cfs.
  - Temporary Geotextile Storm drain Inserts: Different products provide different features. Refer to manufacturer details for targeted pollutants and additional features.
  - Biofilter Bag Barrier: Used to create a small retention area upstream of inlets and can be located on pavement or soil. Biofilter bags slowly filter runoff allowing sediment to settle out. Appropriate for flows under 0.5 cfs.
- Select the appropriate type of inlet protection and design as referred to or as described in this fact sheet.
- Provide area around the inlet for water to pond without flooding structures and property.
- Grates and spaces around all inlets should be sealed to prevent seepage of sediment-laden water.
- Excavate sediment sumps (where needed) 1 to 2 ft with 2:1 side slopes around the inlet.

Installation

- ***DI Protection Type 1 - Silt Fence*** - Similar to constructing a silt fence; see BMP SE-1, Silt Fence. Do not place fabric underneath the inlet grate since the collected sediment may fall into the drain inlet when the fabric is removed or replaced and water flow through the grate will be blocked resulting in flooding. See typical Type 1 installation details at the end of this fact sheet.
  1. Excavate a trench approximately 6 in. wide and 6 in. deep along the line of the silt fence inlet protection device.
  2. Place 2 in. by 2 in. wooden stakes around the perimeter of the inlet a maximum of 3 ft apart and drive them at least 18 in. into the ground or 12 in. below the bottom of the trench. The stakes should be at least 48 in.
  3. Lay fabric along bottom of trench, up side of trench, and then up stakes. See SE-1, Silt Fence, for details. The maximum silt fence height around the inlet is 24 in.
  4. Staple the filter fabric (for materials and specifications, see SE-1, Silt Fence) to wooden stakes. Use heavy-duty wire staples at least 1 in. in length.

5. Backfill the trench with gravel or compacted earth all the way around.

- ***DI Protection Type 2 - Excavated Drop Inlet Sediment Trap*** - Install filter fabric fence in accordance with DI Protection Type 1. Size excavated trap to provide a minimum storage capacity calculated at the rate 67 yd^3/acre of drainage area. See typical Type 2 installation details at the end of this fact sheet.

- ***DI Protection Type 3 - Gravel bag*** - Flow from a severe storm should not overtop the curb. In areas of high clay and silts, use filter fabric and gravel as additional filter media. Construct gravel bags in accordance with SE-6, Gravel Bag Berm. Gravel bags should be used due to their high permeability. See typical Type 3 installation details at the end of this fact sheet.

  1. Construct on gently sloping street.
  2. Leave room upstream of barrier for water to pond and sediment to settle.
  3. Place several layers of gravel bags – overlapping the bags and packing them tightly together.
  4. Leave gap of one bag on the top row to serve as a spillway. Flow from a severe storm (e.g., 10 year storm) should not overtop the curb.

- ***DI Protection Type 4 – Block and Gravel Filter*** - Block and gravel filters are suitable for curb inlets commonly used in residential, commercial, and industrial construction. See typical Type 4 installation details at the end of this fact sheet.

  1. Place hardware cloth or comparable wire mesh with 0.5 in. openings over the drop inlet so that the wire extends a minimum of 1 ft beyond each side of the inlet structure. If more than one strip is necessary, overlap the strips. Place woven geotextile over the wire mesh.
  2. Place concrete blocks lengthwise on their sides in a single row around the perimeter of the inlet, so that the open ends face outward, not upward. The ends of adjacent blocks should abut. The height of the barrier can be varied, depending on design needs, by stacking combinations of blocks that are 4 in., 8 in., and 12 in. wide. The row of blocks should be at least 12 in. but no greater than 24 in. high.
  3. Place wire mesh over the outside vertical face (open end) of the concrete blocks to prevent stone from being washed through the blocks. Use hardware cloth or comparable wire mesh with 0.5 in. opening.
  4. Pile washed stone against the wire mesh to the top of the blocks. Use 0.75 to 3 in.

- ***DI Protection Type 5 – Temporary Geotextile Insert (proprietary)*** – Many types of temporary inserts are available. Most inserts fit underneath the grate of a drop inlet or inside of a curb inlet and are fastened to the outside of the grate or curb. These inserts are removable and many can be cleaned and reused. Installation of these inserts differs between manufacturers. Please refer to manufacturer instruction for installation of proprietary devices.

- ***DI Protection Type 6 - Biofilter bags*** – Biofilter bags may be used as a substitute for gravel bags in low-flow situations. Biofilter bags should conform to specifications detailed in SE-14, Biofilter bags.

    1. Construct in a gently sloping area.
    2. Biofilter bags should be placed around inlets to intercept runoff flows.
    3. All bag joints should overlap by 6 in.
    4. Leave room upstream for water to pond and for sediment to settle out.
    5. Stake bags to the ground as described in the following detail. Stakes may be omitted if bags are placed on a paved surface.

Costs

- Average annual cost for installation and maintenance of DI Type 1-4 and 6 (one year useful life) is $200 per inlet.
- Temporary geotextile inserts are proprietary and cost varies by region. These inserts can often be reused and may have greater than 1 year of use if maintained and kept undamaged. Average cost per insert ranges from $50-75 plus installation, but costs can exceed $100. This cost does not include maintenance.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Silt Fences. If the fabric becomes clogged, torn, or degrades, it should be replaced. Make sure the stakes are securely driven in the ground and are in good shape (i.e., not bent, cracked, or splintered, and are reasonably perpendicular to the ground). Replace damaged stakes. At a minimum, remove the sediment behind the fabric fence when accumulation reaches one-third the height of the fence or barrier height.
- Gravel Filters. If the gravel becomes clogged with sediment, it should be carefully removed from the inlet and either cleaned or replaced. Since cleaning gravel at a construction site may be difficult, consider using the sediment-laden stone as fill material and put fresh stone around the inlet. Inspect bags for holes, gashes, and snags, and replace bags as needed. Check gravel bags for proper arrangement and displacement.
- Sediment that accumulates in the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Inspect and maintain temporary geotextile insert devices according to manufacturer's specifications.
- Remove storm drain inlet protection once the drainage area is stabilized.

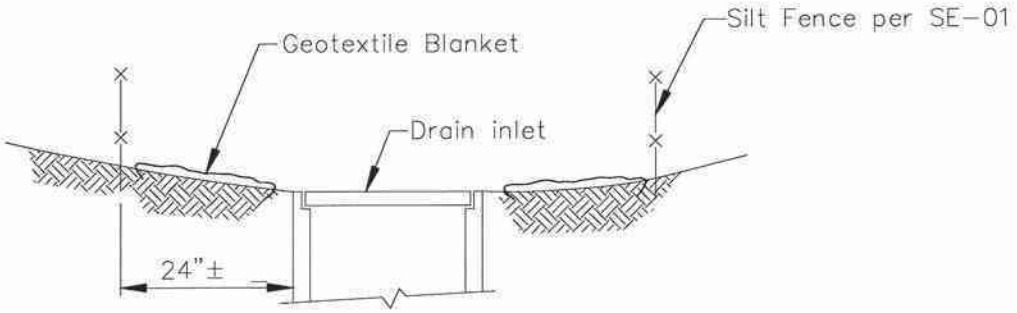
- Clean and regrade area around the inlet and clean the inside of the storm drain inlet, as it should be free of sediment and debris at the time of final inspection.

References

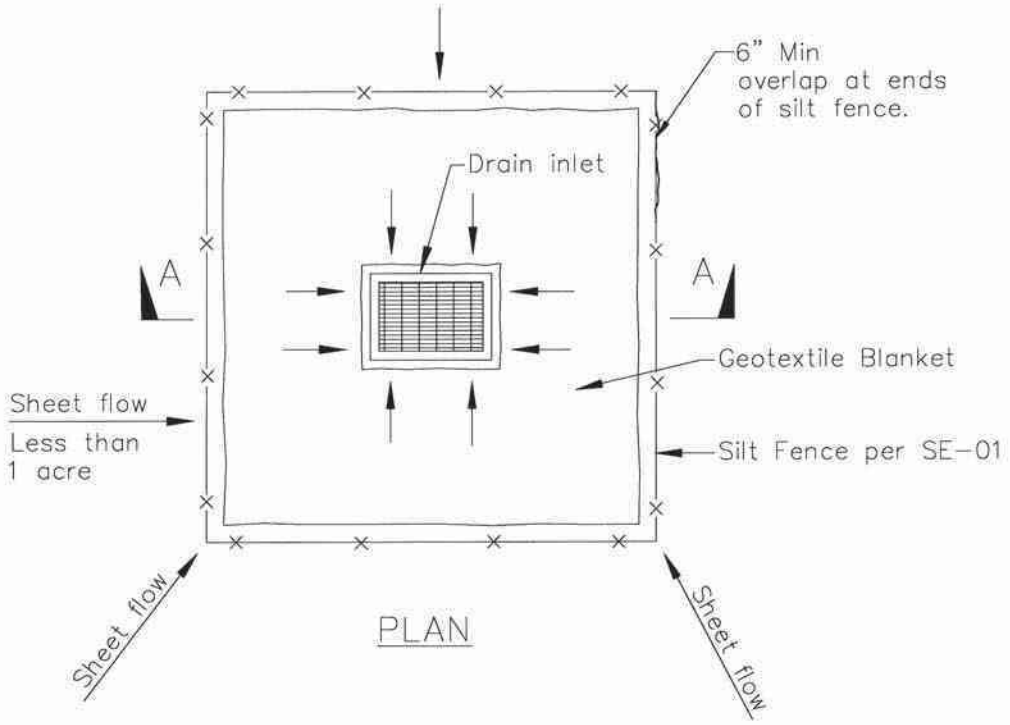
Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management Manual for The Puget Sound Basin, Washington State Department of Ecology, Public Review Draft, 1991.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.



SECTION A–A

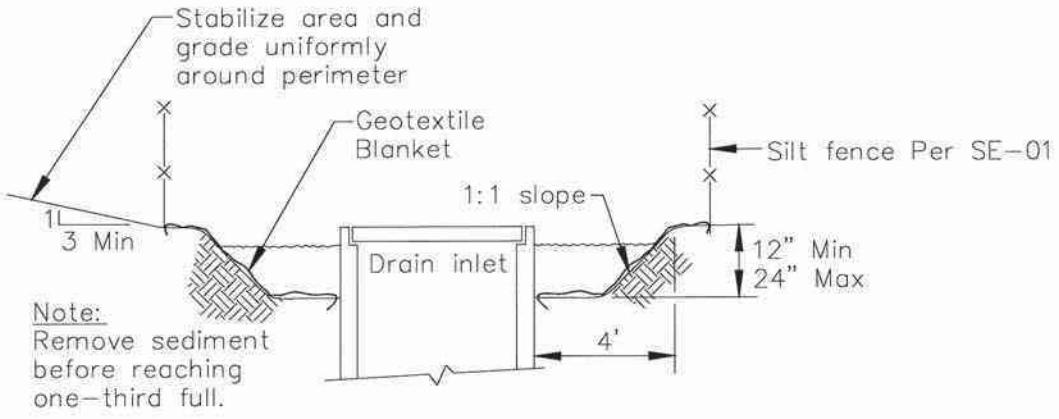


PLAN

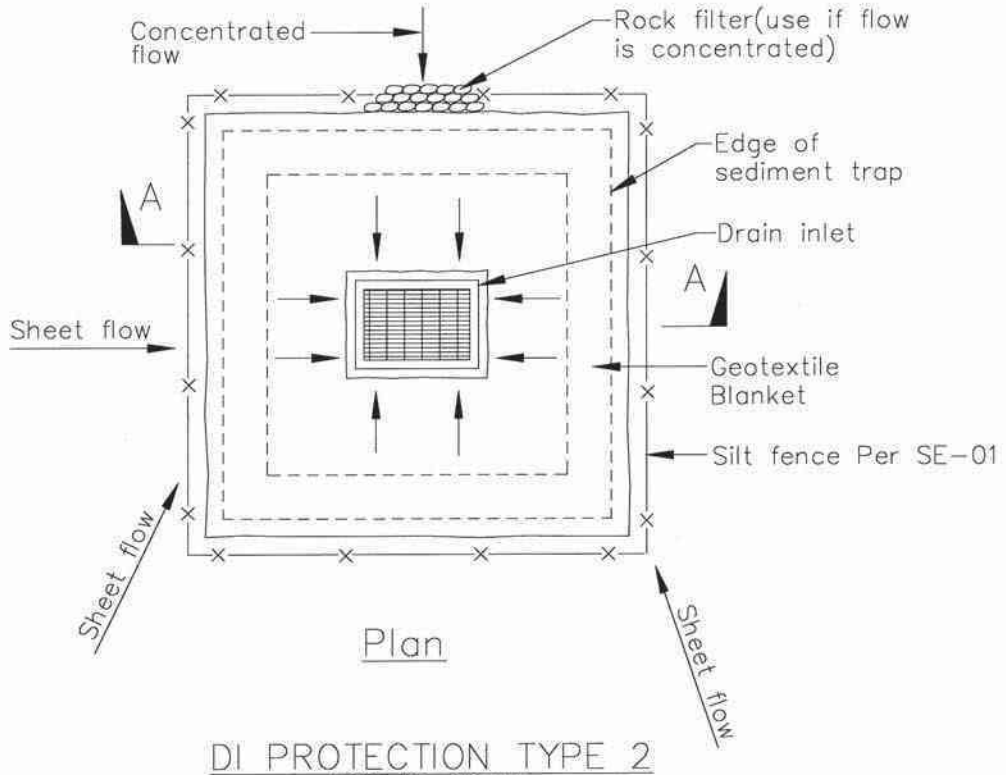
DI PROTECTION TYPE 1
NOT TO SCALE

NOTES:

1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.
2. Not applicable in paved areas.
3. Not applicable with concentrated flows.



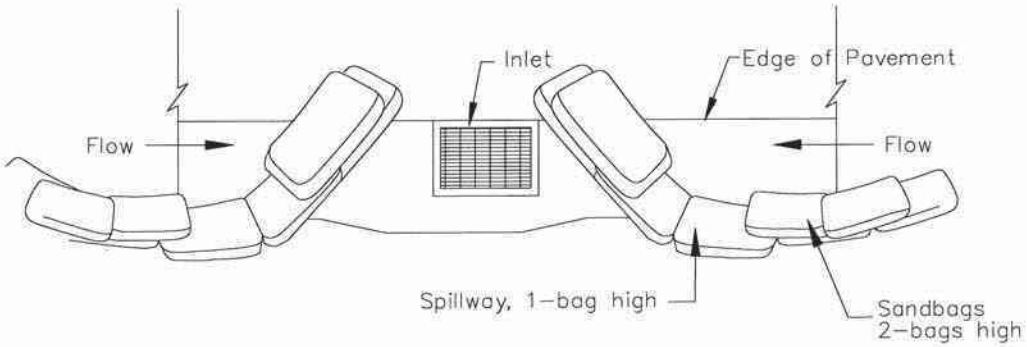
Section A-A



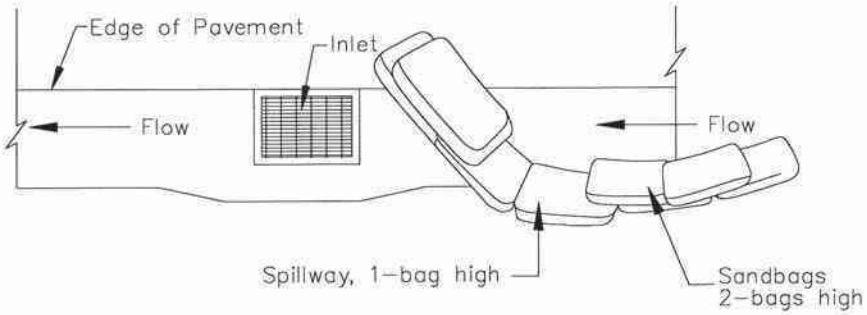
Plan

DI PROTECTION TYPE 2
NOT TO SCALE

Notes
1. For use in cleared and grubbed and in graded areas.
2. Shape basin so that longest inflow area faces longest length of trap.
3. For concentrated flows, shape basin in 2:1 ratio with length oriented towards direction of flow.



TYPICAL PROTECTION FOR INLET ON SUMP

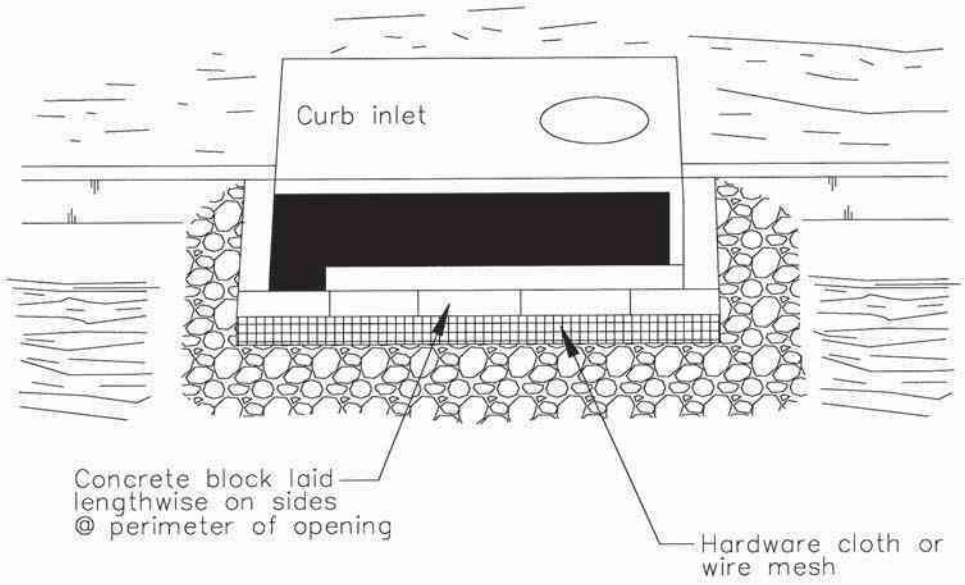


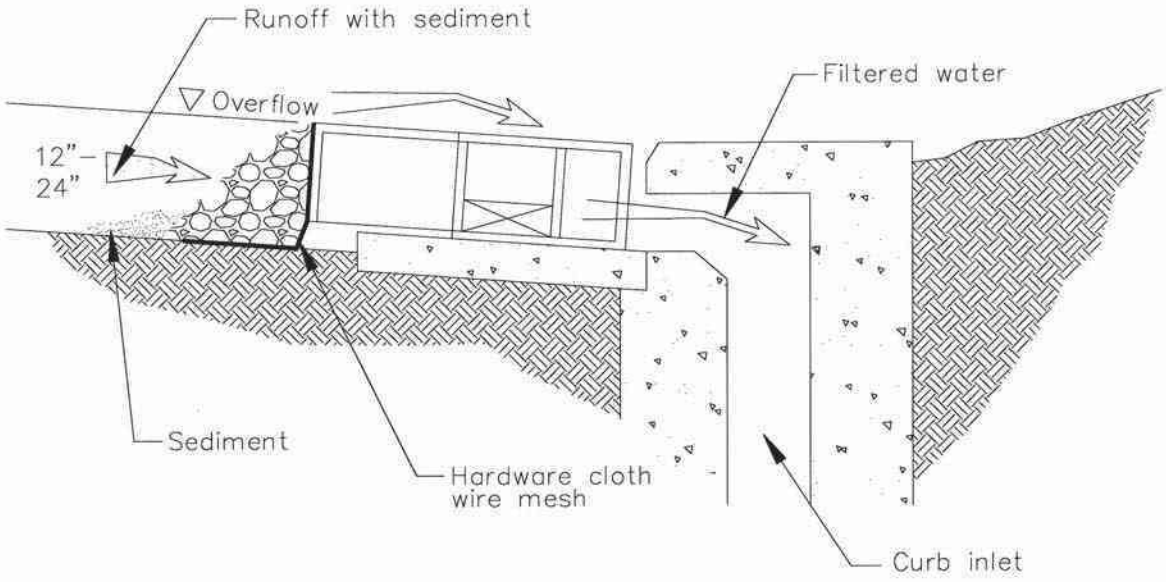
TYPICAL PROTECTION FOR INLET ON GRADE

NOTES:

1. Intended for short-term use.
2. Use to inhibit non-storm water flow.
3. Allow for proper maintenance and cleanup.
4. Bags must be removed after adjacent operation is completed
5. Not applicable in areas with high silts and clays without filter fabric.

DI PROTECTION TYPE 3
NOT TO SCALE





DI PROTECTION – TYPE 4

NOT TO SCALE

Infiltration Basin TC-11

Design Considerations

- Soil for Infiltration
- Slope
- Aesthetics

Targeted Constituents

☑	Sediment	■
☑	Nutrients	■
☑	Trash	■
☑	Metals	■
☑	Bacteria	■
☑	Oil and Grease	■
☑	Organics	■

Legend ***(Removal Effectiveness)***

● Low ■ High

▲ Medium

Description

An infiltration basin is a shallow impoundment that is designed to infiltrate stormwater. Infiltration basins use the natural filtering ability of the soil to remove pollutants in stormwater runoff. Infiltration facilities store runoff until it gradually exfiltrates through the soil and eventually into the water table. This practice has high pollutant removal efficiency and can also help recharge groundwater, thus helping to maintain low flows in stream systems. Infiltration basins can be challenging to apply on many sites, however, because of soils requirements. In addition, some studies have shown relatively high failure rates compared with other management practices.

California Experience

Infiltration basins have a long history of use in California, especially in the Central Valley. Basins located in Fresno were among those initially evaluated in the National Urban Runoff Program and were found to be effective at reducing the volume of runoff, while posing little long-term threat to groundwater quality (EPA, 1983; Schroeder, 1995). Proper siting of these devices is crucial as underscored by the experience of Caltrans in siting two basins in Southern California. The basin with marginal separation from groundwater and soil permeability failed immediately and could never be rehabilitated.

Advantages

- Provides 100% reduction in the load discharged to surface waters.
- The principal benefit of infiltration basins is the approximation of pre-development hydrology during which a

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significant portion of the average annual rainfall runoff is infiltrated and evaporated rather than flushed directly to creeks.

- If the water quality volume is adequately sized, infiltration basins can be useful for providing control of channel forming (erosion) and high frequency (generally less than the 2-year) flood events.

Limitations

- May not be appropriate for industrial sites or locations where spills may occur.
- Infiltration basins require a minimum soil infiltration rate of 0.5 inches/hour, not appropriate at sites with Hydrologic Soil Types C and D.
- If infiltration rates exceed 2.4 inches/hour, then the runoff should be fully treated prior to infiltration to protect groundwater quality.
- Not suitable on fill sites or steep slopes.
- Risk of groundwater contamination in very coarse soils.
- Upstream drainage area must be completely stabilized before construction.
- Difficult to restore functioning of infiltration basins once clogged.

Design and Sizing Guidelines

- Water quality volume determined by local requirements or sized so that 85% of the annual runoff volume is captured.
- Basin sized so that the entire water quality volume is infiltrated within 48 hours.
- Vegetation establishment on the basin floor may help reduce the clogging rate.

Construction/Inspection Considerations

- Before construction begins, stabilize the entire area draining to the facility. If impossible, place a diversion berm around the perimeter of the infiltration site to prevent sediment entrance during construction or remove the top 2 inches of soil after the site is stabililized. Stabilize the entire contributing drainage area, including the side slopes, before allowing any runoff to enter once construction is complete.
- Place excavated material such that it can not be washed back into the basin if a storm occurs during construction of the facility.
- Build the basin without driving heavy equipment over the infiltration surface. Any equipment driven on the surface should have extra-wide ("low pressure") tires. Prior to any construction, rope off the infiltration area to stop entrance by unwanted equipment.
- After final grading, till the infiltration surface deeply.
- Use appropriate erosion control seed mix for the specific project and location.

Performance

As water migrates through porous soil and rock, pollutant attenuation mechanisms include precipitation, sorption, physical filtration, and bacterial degradation. If functioning properly, this approach is presumed to have high removal efficiencies for particulate pollutants and moderate removal of soluble pollutants. Actual pollutant removal in the subsurface would be expected to vary depending upon site-specific soil types. This technology eliminates discharge to surface waters except for the very largest storms; consequently, complete removal of all stormwater constituents can be assumed.

There remain some concerns about the potential for groundwater contamination despite the findings of the NURP and Nightingale (1975; 1987a,b,c; 1989). For instance, a report by Pitt et al. (1994) highlighted the potential for groundwater contamination from intentional and unintentional stormwater infiltration. That report recommends that infiltration facilities not be sited in areas where high concentrations are present or where there is a potential for spills of toxic material. Conversely, Schroeder (1995) reported that there was no evidence of groundwater impacts from an infiltration basin serving a large industrial catchment in Fresno, CA.

Siting Criteria

The key element in siting infiltration basins is identifying sites with appropriate soil and hydrogeologic properties, which is critical for long term performance. In one study conducted in Prince George's County, Maryland (Galli, 1992), all of the infiltration basins investigated clogged within 2 years. It is believed that these failures were for the most part due to allowing infiltration at sites with rates of less than 0.5 in/hr, basing siting on soil type rather than field infiltration tests, and poor construction practices that resulted in soil compaction of the basin invert.

A study of 23 infiltration basins in the Pacific Northwest showed better long-term performance in an area with highly permeable soils (Hilding, 1996). In this study, few of the infiltration basins had failed after 10 years. Consequently, the following guidelines for identifying appropriate soil and subsurface conditions should be rigorously adhered to.

- Determine soil type (consider RCS soil type 'A, B or C' only) from mapping and consult USDA soil survey tables to review other parameters such as the amount of silt and clay, presence of a restrictive layer or seasonal high water table, and estimated permeability. The soil should not have more than 30% clay or more than 40% of clay and silt combined. Eliminate sites that are clearly unsuitable for infiltration.

- Groundwater separation should be at least 3 m from the basin invert to the measured ground water elevation. There is concern at the state and regional levels of the impact on groundwater quality from infiltrated runoff, especially when the separation between groundwater and the surface is small.

- Location away from buildings, slopes and highway pavement (greater than 6 m) and wells and bridge structures (greater than 30 m). Sites constructed of fill, having a base flow or with a slope greater than 15% should not be considered.

- Ensure that adequate head is available to operate flow splitter structures (to allow the basin to be offline) without ponding in the splitter structure or creating backwater upstream of the splitter.

- Base flow should not be present in the tributary watershed.

Secondary Screening Based on Site Geotechnical Investigation

- At least three in-hole conductivity tests shall be performed using USBR 7300-89 or Bouwer-Rice procedures (the latter if groundwater is encountered within the boring), two tests at different locations within the proposed basin and the third down gradient by no more than approximately 10 m. The tests shall measure permeability in the side slopes and the bed within a depth of 3 m of the invert.

- The minimum acceptable hydraulic conductivity as measured in any of the three required test holes is 13 mm/hr. If any test hole shows less than the minimum value, the site should be disqualified from further consideration.

- Exclude from consideration sites constructed in fill or partially in fill unless no silts or clays are present in the soil boring. Fill tends to be compacted, with clays in a dispersed rather than flocculated state, greatly reducing permeability.

- The geotechnical investigation should be such that a good understanding is gained as to how the stormwater runoff will move in the soil (horizontally or vertically) and if there are any geological conditions that could inhibit the movement of water.

Additional Design Guidelines

(1) Basin Sizing - The required water quality volume is determined by local regulations or sufficient to capture 85% of the annual runoff.

(2) Provide pretreatment if sediment loading is a maintenance concern for the basin.

(3) Include energy dissipation in the inlet design for the basins. Avoid designs that include a permanent pool to reduce opportunity for standing water and associated vector problems.

(4) Basin invert area should be determined by the equation:

$$A = \frac{WQV}{kt}$$

where A = Basin invert area (m^2)

WQV = water quality volume (m^3)

k = 0.5 times the lowest field-measured hydraulic conductivity (m/hr)

t = drawdown time (48 hr)

(5) The use of vertical piping, either for distribution or infiltration enhancement shall not be allowed to avoid device classification as a Class V injection well per 40 CFR146.5(e)(4).

Maintenance

Regular maintenance is critical to the successful operation of infiltration basins. Recommended operation and maintenance guidelines include:

- Inspections and maintenance to ensure that water infiltrates into the subsurface completely (recommended infiltration rate of 72 hours or less) and that vegetation is carefully managed to prevent creating mosquito and other vector habitats.
- Observe drain time for the design storm after completion or modification of the facility to confirm that the desired drain time has been obtained.
- Schedule semiannual inspections for beginning and end of the wet season to identify potential problems such as erosion of the basin side slopes and invert, standing water, trash and debris, and sediment accumulation.
- Remove accumulated trash and debris in the basin at the start and end of the wet season.
- Inspect for standing water at the end of the wet season.
- Trim vegetation at the beginning and end of the wet season to prevent establishment of woody vegetation and for aesthetic and vector reasons.
- Remove accumulated sediment and regrade when the accumulated sediment volume exceeds 10% of the basin.
- If erosion is occurring within the basin, revegetate immediately and stabilize with an erosion control mulch or mat until vegetation cover is established.
- To avoid reversing soil development, scarification or other disturbance should only be performed when there are actual signs of clogging, rather than on a routine basis. Always remove deposited sediments before scarification, and use a hand-guided rotary tiller, if possible, or a disc harrow pulled by a very light tractor.

Cost

Infiltration basins are relatively cost-effective practices because little infrastructure is needed when constructing them. One study estimated the total construction cost at about $2 per ft (adjusted for inflation) of storage for a 0.25-acre basin (SWRPC, 1991). As with other BMPs, these published cost estimates may deviate greatly from what might be incurred at a specific site. For instance, Caltrans spent about $18/ft^3 for the two infiltration basins constructed in southern California, each of which had a water quality volume of about 0.34 ac.-ft. Much of the higher cost can be attributed to changes in the storm drain system necessary to route the runoff to the basin locations.

Infiltration basins typically consume about 2 to 3% of the site draining to them, which is relatively small. Additional space may be required for buffer, landscaping, access road, and fencing. Maintenance costs are estimated at 5 to 10% of construction costs.

One cost concern associated with infiltration practices is the maintenance burden and longevity. If improperly maintained, infiltration basins have a high failure rate. Thus, it may be necessary to replace the basin with a different technology after a relatively short period of time.

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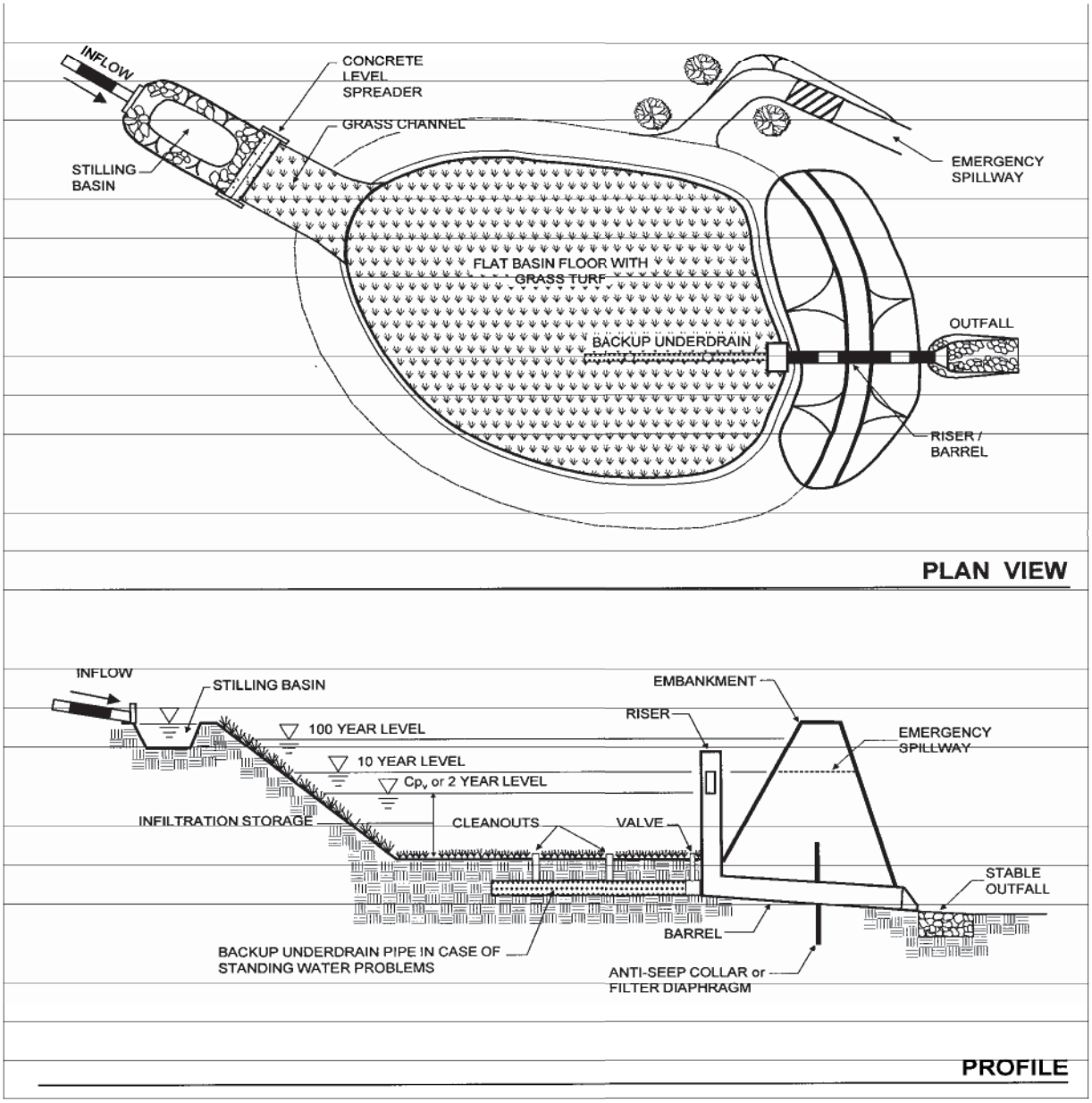

INFLOW
CONCRETE LEVEL SPREADER
GRASS CHANNEL
STILLING BASIN
EMERGENCY SPILLWAY
FLAT BASIN FLOOR WITH GRASS TURF
OUTFALL
BACKUP UNDERDRAIN
RISER / BARREL
PLAN VIEW
INFLOW
STILLING BASIN
EMBANKMENT
RISER
100 YEAR LEVEL
EMERGENCY SPILLWAY
10 YEAR LEVEL
Cpv or 2 YEAR LEVEL
INFILTRATION STORAGE
CLEANOUTS
VALVE
STABLE OUTFALL
BARREL
BACKUP UNDERDRAIN PIPE IN CASE OF STANDING WATER PROBLEMS
ANTI-SEEP COLLAR or FILTER DIAPHRAGM
PROFILE

Help Protect Our Waterways!

Use these guidelines for Outdoor Cleaning Activities and Wash Water Disposal

Did you know that disposing of pollutants into the street, gutter, storm drain or body of water is *PROHIBITED* by law and can result in stiff penalties?

Best Management Practices

Waste wash water from Mechanics, Plumbers, Window/Power Washers, Carpet Cleaners, Car Washing and Mobile Detailing activities may contain significant quantities of motor oil, grease, chemicals, dirt, detergents, brake pad dust, litter and other materials.

Best Management Practices, or BMPs as they are known, are guides to prevent pollutants from entering the storm drains. ***Each of us*** can do our part to keep stormwater clean by using the suggested BMPs below:

Simple solutions for both light and heavy duty jobs:

Do...consider dry cleaning methods first such as a mop, broom, rag or wire brush. Always keep a spill response kit on site.

Do...prepare the work area before power cleaning by using sand bags, rubber mats, vacuum booms, containment pads or temporary berms to keep wash water away from the gutters and storm drains.

Do...use vacuums or other machines to remove and collect loose debris or litter before applying water.

Do...obtain the property owner's permission to dispose of ***small amounts*** of power washing waste water on to landscaped, gravel or unpaved surfaces.

Do...check your local sanitary sewer agency's policies on wash water disposal regulations before disposing of wash water into the sewer. (See list on reverse side)

Do...be aware that if discharging to landscape areas, soapy wash water may damage landscaping. Residual wash water may remain on paved surfaces to evaporate. Sweep up solid residuals and dispose of properly. Vacuum booms are another option for capturing and collecting wash water.

Do...check to see if local ordinances prevent certain activities.

Do not let...wash or waste water from sidewalk, plaza or building cleaning go into a street or storm drain.

Report illegal storm drain disposal
Call Toll Free
1-800-506-2555

Using Cleaning Agents

Try using biodegradable/phosphate-free products. They are easier on the environment, but don't confuse them with being toxic free. Soapy water entering the storm drain system can impact the delicate aquatic environment.

When cleaning surfaces with a ***high-pressure washer*** or ***steam cleaner***, additional precautions should be taken to prevent the discharge of pollutants into the storm drain system. These two methods of surface cleaning can loosen additional material that can contaminate local waterways.

Think Water Conservation

Minimize water use by using high pressure, low volume nozzles. Be sure to check all hoses for leaks. Water is a precious resource, don't let it flow freely and be sure to shut it off in between uses.

Screening Wash Water

Conduct thorough dry cleanup before washing exterior surfaces, such as buildings and decks ***with loose paint***, sidewalks or plaza areas. Keep debris from entering the storm drain after cleaning by first passing the wash water through a "20 mesh" or finer screen to catch the solid materials, then dispose of the mesh in a refuse container. Do not let the remaining wash water enter a street, gutter or storm drain.

Drain Inlet Protection & Collection of Wash Water

- Prior to any washing, block all storm drains with an impervious barrier such as sandbags or berms, or seal the storm drain with plugs or other appropriate materials.
- Create a containment area with berms and traps or take advantage of a low spot to keep wash water contained.
- Wash vehicles and equipment on grassy or gravel areas so that the wash water can seep into the ground.
- Pump or vacuum up all wash water in the contained area.

Concrete/Coring/Saw Cutting and Drilling Projects

Protect any down-gradient inlets by using dry activity techniques whenever possible. If water is used, minimize the amount of water used during the coring/drilling or saw cutting process. Place a barrier of sandbags and/or absorbent berms to protect the storm drain inlet or watercourse. Use a shovel or wet vacuum to remove the residue from the pavement. Do not wash residue or particulate matter into a storm drain inlet or watercourse.

Helpful telephone numbers and links:

Riverside County Stormwater Protection Partners

Flood Control District	(951) 955-1200
County of Riverside	(951) 955-1000
City of Banning	(951) 922-3105
City of Beaumont	(951) 769-8520
City of Calimesa	(909) 795-9801
City of Canyon Lake	(951) 244-2955
Cathedral City	(760) 770-0327
City of Coachella	(760) 398-4978
City of Corona	(951) 736-2447
City of Desert Hot Springs	(760) 329-6411
City of Eastvale	(951) 361-0900
City of Hemet	(951) 765-2300
City of Indian Wells	(760) 346-2489
City of Indio	(760) 391-4000
City of Lake Elsinore	(951) 674-3124
City of La Quinta	(760) 777-7000
City of Menifee	(951) 672-6777
City of Moreno Valley	(951) 413-3000
City of Murrieta	(951) 304-2489
City of Norco	(951) 270-5607
City of Palm Desert	(760) 346-0611
City of Palm Springs	(760) 323-8299
City of Perris	(951) 943-6100
City of Rancho Mirage	(760) 324-4511
City of Riverside	(951) 361-0900
City of San Jacinto	(951) 654-7337
City of Temecula	(951) 694-6444
City of Wildomar	(951) 677-7751

REPORT ILLEGAL STORM DRAIN DISPOSAL
1-800-506-2555 or e-mail us at
fcnpdes@rcflood.org

- Riverside County Flood Control and Water Conservation District
  www.rcflood.org

Online resources include:

- California Storm Water Quality Association
  www.casqa.org
- State Water Resources Control Board
  www.waterboards.ca.gov
- Power Washers of North America
  www.thepwna.org

Stormwater Pollution

What you should know for...

Outdoor Cleaning Activities and Professional Mobile Service Providers

Storm drain pollution prevention information for:

- Car Washing / Mobile Detailers
- Window and Carpet Cleaners
- Power Washers
- Waterproofers / Street Sweepers
- Equipment cleaners or degreasers and all mobile service providers

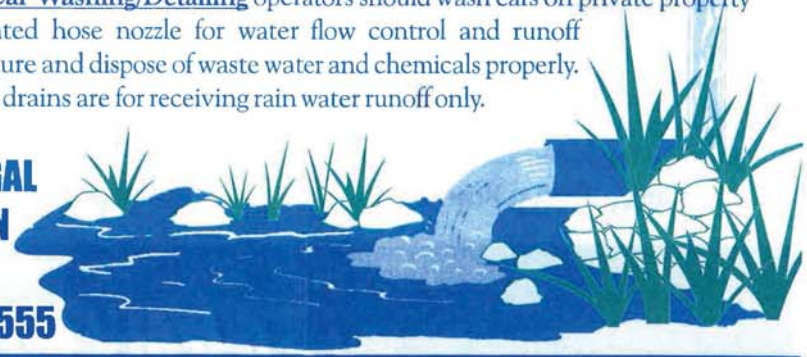
Do you know where street flows actually go?

Storm drains are NOT connected to sanitary sewer systems and treatment plants!

The primary purpose of storm drains is to carry *rain* water away from developed areas to prevent flooding. Pollutants discharged to storm drains are transported directly into rivers, lakes and streams. Soaps, degreasers, automotive fluids, litter and a host of materials are washed off buildings, sidewalks, plazas and parking areas. Vehicles and equipment must be properly managed to prevent the pollution of local waterways.

Unintentional spills by mobile service operators can flow into storm drains and pollute our waterways. **Avoid mishaps.** *Always* have a **Spill Response Kit** on hand to clean up unintentional spills. Only emergency **Mechanical** repairs should be done in City streets, using drip pans for spills. **Plumbing** should be done on private property. Always store chemicals in a leak-proof container and keep covered when not in use. **Window/Power Washing** waste water shouldn't be released into the streets, but should be disposed of in a sanitary sewer, landscaped area or in the soil. Soiled **Carpet Cleaning** wash water should be filtered before being discharged into the sanitary sewer. Dispose of all filter debris properly. **Car Washing/Detailing** operators should wash cars on private property and use a regulated hose nozzle for water flow control and runoff prevention. Capture and dispose of waste water and chemicals properly. Remember, storm drains are for receiving rain water runoff only.

REPORT ILLEGAL STORM DRAIN DISPOSAL 1-800-506-2555



WHEN IT RAINS IT DRAINS

After the Storm

A Citizen's Guide to Understanding Stormwater

EPA 833-B-03-002

January 2003

THE YEAR OF CLEAN WATER

For more information contact:

or visit
www.epa.gov/npdes/stormwater
www.epa.gov/nps

What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.

Why is stormwater runoff a problem?

Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water.

The effects of pollution

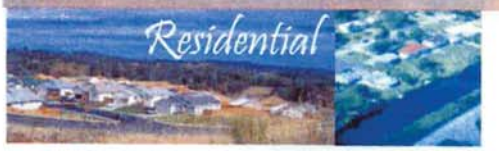
Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.
- Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.

- Debris—plastic bags, six-pack rings, bottles, and cigarette butts—washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.

- Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.

Stormwater Pollution Solutions



Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint, solvents, and used motor oil and other auto fluids. Don't pour them onto the ground or into storm drains.

Lawn care

Excess fertilizers and pesticides applied to lawns and gardens wash off and pollute streams. In addition, yard clippings and leaves can wash into storm drains and contribute nutrients and organic matter to streams.

- Don't overwater your lawn. Consider using a soaker hose instead of a sprinkler.
- Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Use organic mulch or safer pest control methods whenever possible.
- Compost or mulch yard waste. Don't leave it in the street or sweep it into storm drains or streams.
- Cover piles of dirt or mulch being used in landscaping projects.

Auto care

Washing your car and degreasing auto parts at home can send detergents and other contaminants through the storm sewer system. Dumping automotive fluids into storm drains has the same result as dumping the materials directly into a waterbody.

- Use a commercial car wash that treats or recycles its wastewater, or wash your car on your yard so the water infiltrates into the ground.
- Repair leaks and dispose of used auto fluids and batteries at designated drop-off or recycling locations.

Septic systems

Leaking and poorly maintained septic systems release nutrients and pathogens (bacteria and viruses) that can be picked up by stormwater and discharged into nearby waterbodies. Pathogens can cause public health problems and environmental concerns.

- Inspect your system every 3 years and pump your tank as necessary (every 3 to 5 years).
- Don't dispose of household hazardous waste in sinks or toilets.

Pet waste

Pet waste can be a major source of bacteria and excess nutrients in local waters.

- When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.

Education is essential to changing people's behavior. Signs and markers near storm drains warn residents that pollutants entering the drains will be carried untreated into a local waterbody.

Residential landscaping

Permeable Pavement—Traditional concrete and asphalt don't allow water to soak into the ground. Instead these surfaces rely on storm drains to divert unwanted water. Permeable pavement systems allow rain and snowmelt to soak through, decreasing stormwater runoff.

Rain Barrels—You can collect rainwater from rooftops in mosquito-proof containers. The water can be used later on lawn or garden areas.

Rain Gardens and Grassy Swales—Specially designed areas planted with native plants can provide natural places for rainwater to collect and soak into the ground. Rain from rooftop areas or paved areas can be diverted into these areas rather than into storm drains.

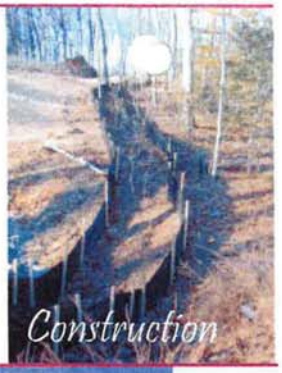
Vegetated Filter Strips—Filter strips are areas of native grass or plants created along roadways or streams. They trap the pollutants stormwater picks up as it flows across driveways and streets.

Dirt, oil, and debris that collect in parking lots and paved areas can be washed into the storm sewer system and eventually enter local waterbodies.

- Sweep up litter and debris from sidewalks, driveways and parking lots, especially around storm drains.
- Cover grease storage and dumpsters and keep them clean to avoid leaks.
- Report any chemical spill to the local hazardous waste cleanup team. They'll know the best way to keep spills from harming the environment.

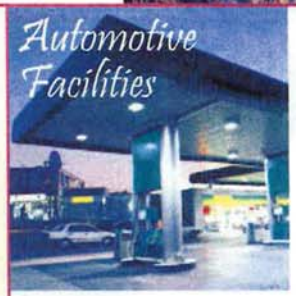
Erosion controls that aren't maintained can cause excessive amounts of sediment and debris to be washed into the stormwater system. Construction vehicles can leak fuel, oil, and other harmful fluids that can be picked up by stormwater and deposited into local waterbodies.

- Divert stormwater away from disturbed or exposed areas of the construction site.
- Install silt fences, vehicle mud removal areas, vegetative cover, and other sediment and erosion controls and properly maintain them, especially after rainstorms.
- Prevent soil erosion by minimizing disturbed areas during construction projects, and seed and mulch bare areas as soon as possible.



Lack of vegetation on streambanks can lead to erosion. Overgrazed pastures can also contribute excessive amounts of sediment to local waterbodies. Excess fertilizers and pesticides can poison aquatic animals and lead to destructive algae blooms. Livestock in streams can contaminate waterways with bacteria, making them unsafe for human contact.

- Keep livestock away from streambanks and provide them a water source away from waterbodies.
- Store and apply manure away from waterbodies and in accordance with a nutrient management plan.
- Vegetate riparian areas along waterways.
- Rotate animal grazing to prevent soil erosion in fields.
- Apply fertilizers and pesticides according to label instructions to save money and minimize pollution.



Uncovered fueling stations allow spills to be washed into storm drains. Cars waiting to be repaired can leak fuel, oil, and other harmful fluids that can be picked up by stormwater.

- Clean up spills immediately and properly dispose of cleanup materials.
- Provide cover over fueling stations and design or retrofit facilities for spill containment.
- Properly maintain fleet vehicles to prevent oil, gas, and other discharges from being washed into local waterbodies.
- Install and maintain oil/water separators.

Improperly managed logging operations can result in erosion and sedimentation.

- Conduct preharvest planning to prevent erosion and lower costs.
- Use logging methods and equipment that minimize soil disturbance.
- Plan and design skid trails, yard areas, and truck access roads to minimize stream crossings and avoid disturbing the forest floor.
- Construct stream crossings so that they minimize erosion and physical changes to streams.
- Expedite revegetation of cleared areas.

Stormwater Pollution from Construction Activities

The two most common sources of stormwater pollution problems associated with construction activities are ***erosion*** and ***sedimentation***. Failure to maintain adequate erosion and sediment controls at construction sites often results in sediment discharges into the storm drain system, creating multiple problems once it enters local waterways.

Construction vehicles and heavy equipment can also track significant amounts of mud and sediment onto adjacent streets. Additionally, wind may transport construction materials and wastes into streets storm drains, or directly into our local waterways.

The Cities and County of Riverside StormWater/CleanWater Protection Program

Because preventing pollution is much easier and less costly than cleaning up "after the fact," the Cities and County of Riverside StormWater/CleanWater Protection Program informs residents and businesses on pollution prevention activities. This pamphlet describes various Best Management Practices (BMPs) that construction site operators can use to prevent stormwater pollution.

In accordance with applicable federal and state law, the Cities and County of Riverside have adopted ordinances for stormwater management and discharge control that **prohibit** the discharge of pollutants into the storm drain system or local surface water. This includes discharges from construction sites containing sediment, concrete, mortar, paint, solvents, lubricants, vehicle fluids, fuel, pesticides, and construction debris.

PLEASE NOTE: The Federal, State and local regulations strictly prohibit the discharge of sediment and pollutants into the streets, the storm drain system or waterways. As an owner, operator or supervisor of a construction site, you may be held financially responsible for any environmental damage caused by your subcontractors or employees.

Resources

State Water Resources Control Board
Division of Water Quality
1001 I Street
Sacramento CA 95814
(916) 341-5455
www.swrcb.ca.gov/stormwtr/

Colorado River Basin Regional Water
Quality Control Board - Region 7
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260
(760) 346-7491
www.swrcb.ca.gov/~rwqcb7/

Santa Ana Regional Water
Quality Control Board - Region 8
3737 Main Street, Suite 500
Riverside, CA 92501-3348
(909) 782-4130
www.swrcb.ca.gov/~rwqcb8/

San Diego Regional Water
Quality Control Board - Region 9
9771 Clairemont Mesa Blvd., Suite A
San Diego, CA 92124
(858) 467-2952
www.swrcb.ca.gov/~rwqcb9/

To report a hazardous materials spill, call:

Riverside County Hazardous Materials
Emergency Response Team
(909) 358-5055 8:00 a.m. – 5:00 p.m.
(909) 358-5245 after 5:00 p.m.

In an emergency call: **911**

For recycling and hazardous waste disposal, call:

(909) 358-5055

To report an illegal dumping or a clogged storm drain, call:

1-800-506-2555

To order additional brochures or to obtain information on other pollution prevention activities, please call (909) 955-1200 or visit the StormWater/CleanWater Protection Program website at:
www.co.riverside.ca.us/depts/flood/waterquality/npdes.asp

The StormWater/CleanWater Protection Program gratefully acknowledges the Santa Clara Valley Nonpoint Pollution Control Program, Alameda Countywide CleanWater Program and the City of Los Angeles Stormwater Management Division for information provided in this brochure.

StormWater Pollution

What you should know for...

GENERAL CONSTRUCTION & SITE SUPERVISION

Best Management Practices (BMPs) for:

- Developers
- General Contractors
- Home Builders
- Construction Inspectors
- Anyone in the construction business

StormWater Pollution . . . What You Should Know

Riverside County has two drainage systems - sewers and storm drains. The storm drain system was designed to reduce flooding by carrying excess rainwater away from streets and developed areas. Since the storm drain system does not provide for water treatment, it also serves the *unintended* function of transporting pollutants directly to our local waterways.

Unlike sanitary sewers, storm drains are not connected to a wastewater treatment plant – they flow directly to our local streams, rivers and lakes.

Stormwater runoff is a part of the natural hydrologic process. However, land development and construction activities can significantly alter natural drainage processes and introduce pollutants into stormwater runoff. Polluted stormwater runoff from construction sites has been identified as a major source of water pollution in California. It jeopardizes the quality of our local waterways and can pose a serious threat to the health of our aquatic ecosystems.

What Should You Do?
Advance Planning to Prevent Pollution

- ❑ Remove existing vegetation only as needed.
- ❑ Schedule excavation, grading, and paving operations for dry weather periods, if possible.
- ❑ Designate a specific area of the construction site, well away from storm drain inlets or watercourses, for material storage and equipment maintenance.
- ❑ Develop and implement an effective combination of erosion and sediment controls for the construction site.
- ❑ Practice source reduction by ordering only the amount of materials that are needed to finish the project.
- ❑ Educate your employees and subcontractors about stormwater management requirements and their pollution prevention responsibilities.
- ❑ Control the amount of surface runoff at the construction site by impeding internally generated flows and using berms or drainage ditches to direct incoming offsite flows to go around the site. ***Note:*** *Consult local drainage policies for more information.*

Best Management Practices

The following Best Management Practices (BMPs) can significantly reduce pollutant discharges from your construction site. Compliance with stormwater regulations can be as simple as minimizing stormwater contact with potential pollutants by providing covers and secondary containment for construction materials, designating areas away from storm drain systems for storing equipment and materials and implementing good housekeeping practices at the construction site.

- ❑ Protect all storm drain inlets and streams located near the construction site to prevent sediment-laden water from entering the storm drain system.
- ❑ Limit access to and from the site. Stabilize construction entrances/exits to minimize the track out of dirt and mud onto adjacent streets. Conduct frequent street sweeping.
- ❑ Protect stockpiles and construction materials from winds and rain by storing them under a roof, secured impermeable tarp or plastic sheeting.
- ❑ Avoid storing or stockpiling materials near storm drain inlets, gullies or streams.
- ❑ Phase grading operations to limit disturbed areas and duration of exposure.
- ❑ Perform major maintenance and repairs of vehicles and equipment offsite.
- ❑ Wash out concrete mixers only in designated washout areas at the construction site.
- ❑ Set-up and operate small concrete mixers on tarps or heavy plastic drop cloths.
- ❑ Keep construction sites clean by removing trash, debris, wastes, etc. on a regular basis.
- ❑ Clean-up spills immediately using dry clean-up methods (e.g., absorbent materials such as cat litter, sand or rags for liquid spills; sweeping for dry spills such as cement, mortar or fertilizer) and by removing the contaminated soil from spills on dirt areas. .
- ❑ Prevent erosion by implementing any or a combination of soil stabilization practices such as mulching, surface roughening, permanent or temporary seeding.
- ❑ Maintain all vehicles and equipment in good working condition. Inspect frequently for leaks, and repair promptly.
- ❑ Practice proper waste disposal. Many construction materials and wastes, including solvents, water-based paint, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste.
- ❑ Cover open dumpsters with secured tarps or plastic sheeting. Never clean out a dumpster by washing it down on the construction site.
- ❑ Arrange for an adequate debris disposal schedule to insure that dumpsters do not overflow.

General Construction Activities Stormwater Permit

(Construction Activities General Permit)

The State Water Resources Control Board (SWRCB) adopted a new Construction Activities General Permit (WQ Order No. 99-08DWQ) on August 19, 1999, superseding the now expired SWRCB statewide General Permit (WQ Order No. 92-08DWQ). This permit is administered and enforced by the SWRCB and the local Regional Water Quality Control Boards (RWQCB). The updated Construction Activities General Permit establishes a number of new stormwater management requirements for construction site operator.

NOTE: *Some construction activies stormwater permits are issued on a regional basis. Consult your local RWQCB to find out if your project requires coverage under any of these permits.*

Frequently Asked Questions:

Does my construction site require coverage under the Construction Activities General Permit?

Yes, if construction activity results in the disturbance of five or more acres of total land area or is part of a common plan of development that results in the disturbance of five or more acres.

How do I obtain coverage under the Construction Activities General Permit?

Obtain the permit package and submit the completed Notice of Intent (NOI) form to the SWRCB prior to grading or disturbing soil at the construction site. For ongoing construction activity involving a change of ownership, the new owner must submit a new NOI within 30 days of the date of change of ownership. The completed NOI along with the required fee should be mailed to the SWRCB.

What must I do to comply with the requirements of the Construction Activities General Permit?

- ● Implement BMPs for non-stormwater discharges year-round.
- ● Prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) prior to commencing construction activities.
- ● Keep a copy of the SWPPP at the construction site for the entire duration of the project.
- ● Calculate the anticipated stormwater run-off.
- ● Implement an effective combination of erosion and sediment control on all soil disturbed areas.
- ● Conduct site inspections prior to anticipated storm events, every 24-hours during extended storm events, and after actual storm event.
- ● Perform repair and maintenance of BMPs as soon as possible after storm events depending upon worker safety.
- ● Update the SWPPP as needed, to manage pollutants or reflect changes in site conditions.
- ● Include description of post construction BMPs at the construction site, including parties responsible for long-term maintenance.

NOTE: *Please refer to the Construction Activities General Permit for detailed information. You may contact the SWRCB, your local RWQCB, or visit the SWRCB website at www.swrcb.ca.gov/stormwtr/ to obtain a State Construction Activities Stormwater General Permit packet.*

How long is this Construction Activities General Permit in effect?

The Permit coverage stays in effect untilyou submit a Notice of Termination (NOT) to the SWRCB. For the purpose of submitting a NOT, all soil disturbing activities have to be completed and one of the three following criteria has to be met:

1. Change of ownership;
2. A uniform vegetative cover with 70 percent coverage has been established; or,
3. Equivalent stabilization measures such as the use of reinforced channel liners, soil cement, fiber matrices, geotextiles, etc., have been employed.

For Information:

For more information on the General Industrial Storm Water Permit contact:

State Water Resources Control Board (SWRCB)
(916) 657-1146 or www.swrcb.ca.gov/ or, at your Regional Water Quality Control Board (RWQCB).

Santa Ana Region (8)
California Tower
3737 Main Street, Ste. 500
Riverside, CA 92501-3339
(909) 782-4130

San Diego Region (9)
9771 Clairemont Mesa Blvd., Ste. A
San Diego, CA 92124
(619) 467-2952

Colorado River Basin Region (7)
73-720 Fred Waring Dr., Ste. 100
Palm Desert, CA 92260
(760) 346-7491

Spill Response Agency:
Haz-Mat: (909) 358-5055
Hazardous Waste Disposal: (909) 358-5055
Recycling Information: 1-800-366-SAVE
To Report Illegal Dumping or a Clogged Storm Drain: 1-800-506-2555

To order additional brochures or to obtain information on other pollution prevention activities, call: (909) 955-1111.

StormWater CleanWater
PROTECTION PROGRAM

Riverside County gratefully acknowledges the State Water Quality Control Board and the American Public Works Association, Storm Water Quality Task Force for the information provided in this brochure.

Did You Know . . .

Your Facility May Need A Storm Water Permit?

Many industrial facilities and manufacturing operations must obtain coverage under the Industrial Activities Storm Water General Permit

FIND OUT
IF YOUR FACILITY MUST OBTAIN A PERMIT

StormWater Pollution . . . What you should know

Riverside County has two drainage systems - sanitary sewers and storm drains. The storm drain system is designed to help prevent flooding by carrying excess rainwater away from streets. Since the storm drain system does not provide for water treatment, it also serves the *unintended* function of transporting pollutants directly to our waterways.

Unlike sanitary sewers, storm drains are not connected to a treatment plant - they flow directly to our local streams, rivers and lakes.

In recent years, awareness of the need to protect water quality has increased. As a result, federal, state, and local programs have been established to reduce polluted stormwater discharges to our waterways. The emphasis of these programs is to prevent stormwater pollution since it's much easier, and less costly, than cleaning up "after the fact."

National Pollutant Discharge Elimination System (NPDES)

In 1987, the Federal Clean Water Act was amended to establish a framework for regulating industrial stormwater discharges under the NPDES permit program. In California, NPDES permits are issued by the State Water Resources Control Board (SWRCB) and the nine (9) Regional Water Quality Control Boards (RWQCB). In general, certain industrial facilities and manufacturing operations must obtain coverage under the Industrial Activities Storm Water General Permit if the type of facilities or operations falls into one of the several categories described in this brochure.

How Do I Know If I Need A Permit?

Following are ***general descriptions*** of the industry categories types that are regulated by the Industrial Activities Storm Water General Permit. Contact your local Region Water Quality Control Board to determine if your facility/operation requires coverage under the Permit.

➜ Facilities such as cement manufacturing; feedlots; fertilizer manufacturing; petroleum refining; phosphate manufacturing; steam electric power generation; coal mining; mineral mining and processing; ore mining and dressing; and asphalt emulsion;

➜ Facilities classified as lumber and wood products (except wood kitchen cabinets); pulp, paper, and paperboard mills; chemical producers (except some pharmaceutical and biological products); petroleum and coal products; leather production and products; stone, clay and glass products; primary metal industries; fabricated structural metal; ship and boat building and repairing;

➜ Active or inactive mining operations and oil and gas exploration, production, processing, or treatment operations;

➜ Hazardous waste treatment, storage, or disposal facilities;

➜ Landfills, land application sites and open dumps that receive or have received any industrial waste; unless there is a new overlying land use such as a golf course, park, etc., and there is no discharge associated with the landfill;

➜ Facilities involved in the recycling of materials, including metal scrap yards, battery reclaimers, salvage yards, and automobile junkyards;

➜ Steam electric power generating facilities, facilities that generate steam for electric power by combustion;

➜ Transportation facilities that have vehicle maintenance shops, fueling facilities, equipment cleaning operations, or airport deicing operations. This includes school bus maintenance facilities operated by a school district;

➜ Sewage treatment facilities;

➜ Facilities that have areas where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water.

How do I obtain coverage under the Industrial Activities Storm Water General Permit?

Obtain a permit application package from your local Regional Water Quality Control Board listed on the back of this brochure or the State Water Resources Control Board (SWRCB). Submit a completed Notice of Intent (NOI) form, site map and the appropriate fee ($250 or $500) to the SWRCB. Facilities must submit an NOI thirty (30) days prior to beginning operation. Once you submit the NOI, the State Board will send you a letter acknowledging receipt of your NOI and will assign your facility a waste discharge identification number (WDID No.). You will also receive an annual fee billing. These billings should roughly coincide with the date the State Board processed your original NOI submittal.

What are the requirements of the Industrial Activities Storm Water General Permit?

The basic requirements of the Permit are:

1. The facility must eliminate any non-stormwater discharges or obtain a separate permit for such discharges.

2. The facility must develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must identify sources of pollutants that may be exposed to stormwater. Once the sources of pollutants have been identified, the facility operator must develop and implement Best Management Practices (BMPs) to minimize or prevent polluted runoff.

   Guidance in preparing a SWPPP is available from a document prepared by the California Storm Water Quality Task Force called the California Storm Water Best Management Practice Handbook.

3. The facility must develop and implement a Monitoring Program that includes conducting visual observations and collecting samples of the facility's storm water discharges associated with industrial activity. The General Permit requires that the analysis be conducted by a laboratory that is certified by the State of California.

4. The facility must submit to the Regional Board, every July 1, an annual report that includes the results of its monitoring program.

A Non-Storm Water Discharge is... *any discharge to a storm drain system that is not composed entirely of storm water. The following non-storm water discharges are authorized by the General Permit: fire hydrant flushing; potable water sources, including potable water related to the operation, maintenance, or testing of potable water systems; drinking fountain water; atmospheric condensates including refrigeration, air conditioning, and compressor condensate; irrigation drainage; landscape watering; springs; non-contaminated ground water; foundation or footing drainage; and sea water infiltration where the sea waters are discharged back into the sea water source.*

A BMP is . . . *a technique, process, activity, or structure used to reduce the pollutant content of a storm water discharge. BMPs may include simple, non-structural methods such as good housekeeping, staff training and preventive maintenance. Additionally, BMPs may include structural modifications such as the installation of berms, canopies or treatment control (e.g. setting basins, oil/water separators, etc.)*

WARNING*: There are significant penalties for non-compliance: a minimum fine of $5,000 for failing to obtain permit coverage, and, up to $10,000 per day, per violation plus $10 per gallon of discharge in excess of 1,000 gallons.*

PRELIMINARY HYDROLOGY REPORT

For

CORE5 – ETHANAC BUSINESS PARK
DEV20XX-XX

APN: 331-110-023, 331-110-038 & 331-110-039

PROJECT LOCATION

Land on the west side of Sherman road between Ethanac Road and Mclaughlin Road.
in City of Menifee

PREPARED FOR:
DEVELOPER
Core5 Industrial Partners, LLC
300 Spectrum Center Dr., Suite 880
Irvine, CA 92618

PREPARED BY

Huitt-Zollars, Inc.
Johnny Murad, P.E.
3990 Concours Suite 330
Ontario, CA 91764
Ph: 909.941.7799
Fax: 909.941.7789

Draft

Johnny Murad, P.E.
C67512, Exp 6/30/2025

PREPARATION DATE

September 12, 2023

HZ PROJECT NUMBER
R315288.01

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Appendix B 100-year Rational Method Hydrologic Analysis

Appendix C 100-year Unit Hydrographs

Appendix D 100-year Basin Routing

Appendix E Soil Group Map and Isohyetal Map

Appendix F Reference Materials

Introduction
This preliminary hydrology analysis has been prepared for Core5 Industrial Partners, LLC. The project is a new development of an industrial warehouse facility located on the west side of Sherman Road between Ethanac Road and Mclaughlin Road in Menifee, California. The proposed building footprint is approximately 254,710 square feet in size on approximately 11.5 net acres of undeveloped land.

Purpose
The purpose of this report is to present the drainage concept for the project and to determine the design flow rates for the project site. The hydrology maps and calculations reflect the tributary areas and 100-year storm event runoff flows.

Onsite Existing Condition
The project site is a rectangular-shape parcel and is currently vacant undeveloped land. The project site generally slopes ±0.6% from the east property line to the west of the property. The maximum site elevation, located at the east property line, is approximately 1433± feet mean sea level (msl). The minimum site elevation located at the west property line is 1429± feet msl. Runoff from the existing site sheet flows across the property and conveys west to Trumble Road and then south on Dawson Road towards an inlet near the existing channel.

Onsite Proposed Condition
For the proposed condition, the project area runoff will be directed to the on-site underground detention basin and pump system, that is sized for WQMP and HCOC mitigation, located along the east property line. See Appendix A for proposed on-site hydrology map.

Site runoff from the south half of the site, including the building roof, truck court, drive aisles and parking lots, will be collected by catch basins. The collected runoff will then be conveyed through the proposed on-site storm drain Line A and discharged to the underground detention basin/pump system.

Site runoff from the north half of the site, including the building roof, truck court, drive aisles and parking lots, will be collected by catch basins. The collected runoff will then be conveyed through the proposed on-site storm drain Line B and discharge to the detention basin/pump system.

The design capture volume and mitigation volume for HCOC will be pumped to a treatment device through storm drain Line C located at the south west corner and will discharge to the outlet through the property to the south. Any storm greater than the 2-year 24-hour storm will top the weir in the diversion structure and outlet into the proposed Storm Drain outlet being proposed on the project to the west. The runoff will convey west to Trumble Road and then south on Trumble Road to the existing RCFC Romo Lnd channel line A just north of Mclaughlin Road.

Offsite Proposed Condition

Sherman Road is being constructed with high points and low points due to the existing topography per the project to the south and east on Sherman Road. See Appendix F for Conceptual plans for MCC I project.

Hydrologic Analysis
The hydrologic analysis has been prepared in accordance with the Riverside County Flood Control & Water Conservation District (RCFC&WCD) Hydrology Manual Rational method using CIVILD software version 7.1. CIVILD hydrology calculations are included in Appendix B and indicate flow data at each node. Unit hydrograph and detention routing calculations are included in Appendices C and D.

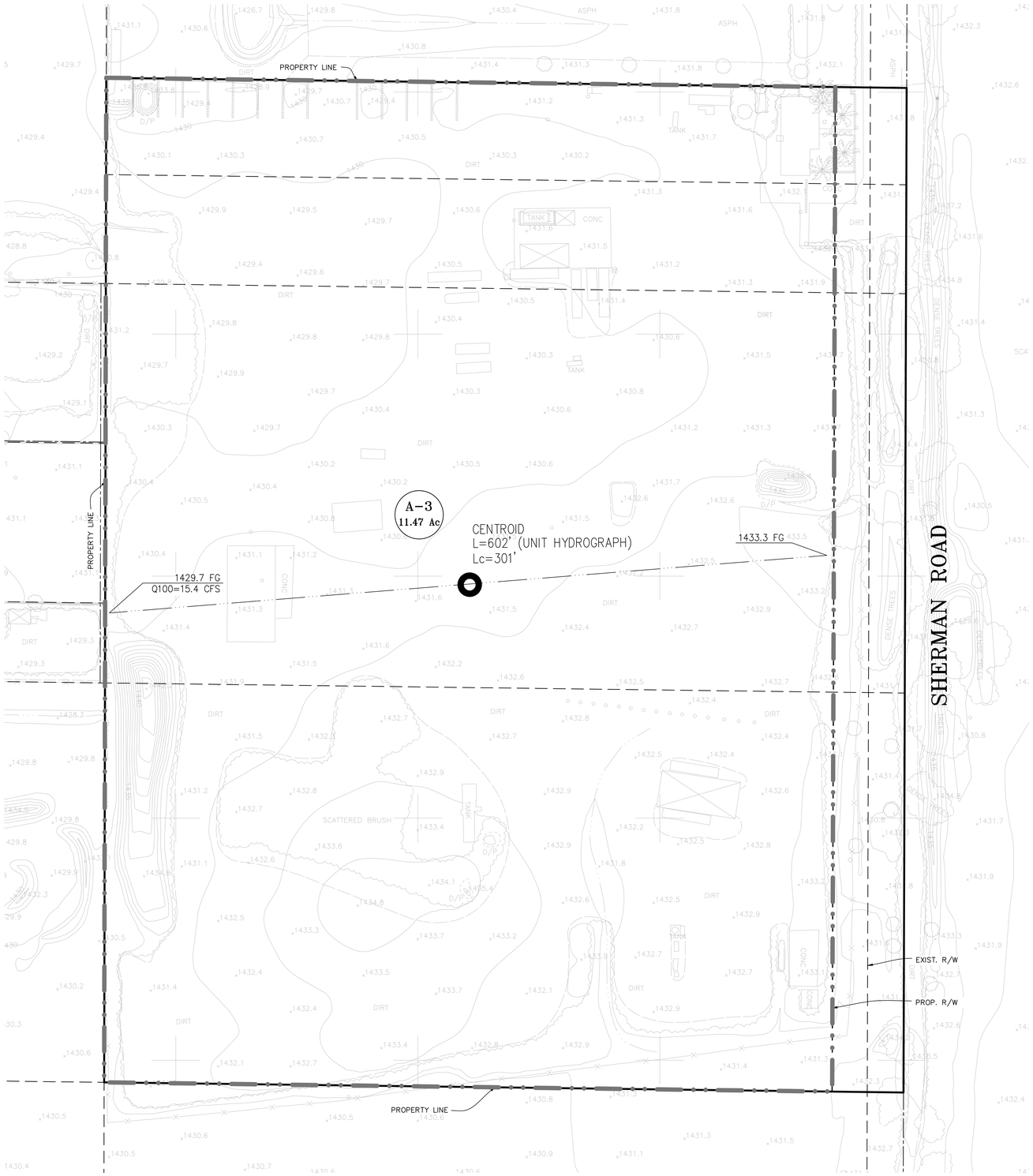
The 100-year, 1-hour rainfall and the 2-year, 1 hour rainfall rates were taken from the isohyetal maps in the Hydrology Manual. The hydrologic soil type for the site is "C" and was taken from the soils map in the Hydrology Manual. See Appendix C for reference maps. A "commercial" land use was used for the project site with AMC II.

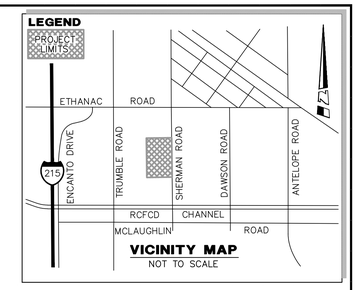
Results
The required capture volume for this project is 20,995 cubic feet of storm water per the current water quality management plan guidance material. Since the project is located within an HCOC area, the ADS underground detention system has been sized to be able to retain 36,190 cubic feet of storm water. During the 2-year 24-hour storm event runoff will be collected in the underground detention system and be pumped to the treatment system. Only the pump flow of 0.3 cfs will leave the site. The proposed development rational analysis resulted in a Q100 peak flow during the one-hour storm of approximately 40.3 cfs. The detention basin pump will only release 0.3 cfs into the treatment system during a 100-year peak storm event. Overflow from the detention basin will flow over a weir on the southwest side of the site and discharge into the proposed storm drain Line that will be extended to the site from Trumble Road by others.

All proposed on-site drainage and storm drain facilities will be sized adequately for 100-year storm event. Additional calculations, including on-site storm drain hydraulics and catch basin sizing in addition to any other storm event models will be provided in the final drainage report.

100 YEAR STORM	1 Hour	24 Hour
Existing Condition Q Out (CFS) From Unit Hydrograph Study for Two Existing Sub-Areas	**15.3**	**5.49**
Proposed condition Max. Q Out (CFS) before Routing From Unit Hydrograph Study for Proposed Sub-Areas	**33.1**	**7.5**
Proposed condition Max. Q Out (CFS) after Routing From Routing Study	**30.4**	**7.5**
Detention Basin Max. WSE	**1,432.83**	**1,431.18**

Appendix A
Preliminary Hydrology Map





LEGEND

- NO. — HYDROLOGY MODEL NODE NUMBER
- A-11 / 7.40 Ac — TRIBUTARY AREA IN ACRES
- 673' — LENGTH OF FLOW
- DRAINAGE BOUNDARY
- FLOW LINE
- FLOW DIRECTION

N

0 20 40 80 120

SCALE 1" = 40'

OWNER/DEVELOPER
CORE5 INDUSTRIAL PARTNERS, LLC
300 SPECTRUM CENTER DRIVE, SUITE 880
IRVINE, CA 92618
PHONE (949)-467-3290
CONTACT PERSON: JOHN KELLY

CIVIL ENGINEER
HUITT-ZOLLARS, INC.
3990 CONCOURS, SUITE 330
ONTARIO, CALIFORNIA 91764
PHONE: (909) 941-7799, X11411
CONTACT PERSON: JOHNNY MURAD

EXISTING UNIT HYDROGRAPH MAP
FOR
CORE 5 - ETHANAC BUSINESS PARK
BUILDING 1
CITY OF MENIFEE

HUITT-ZOLLARS

HUITT-ZOLLARS, INC.
3990 CONCOURSE, SUITE 330 • ONTARIO, CALIFORNIA 91764 • (909) 941-7799

DESIGNED BY	HZ STAFF
DRAWN BY	HZ STAFF
CHECKED BY	J.M.
FIELD BOOK	
SHEET	1 OF 1 SHEETS
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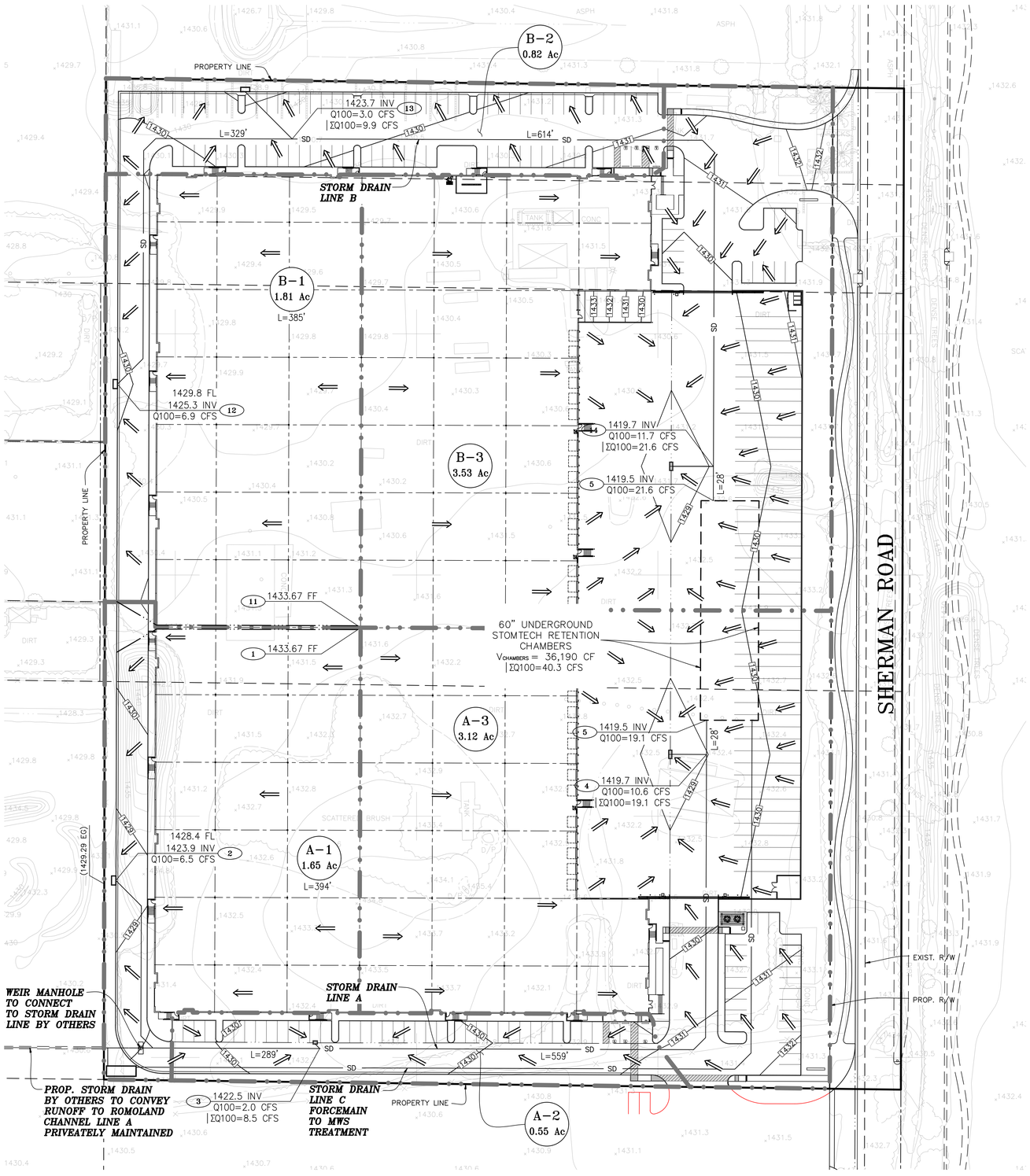

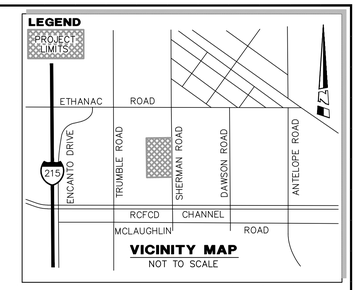

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SCALE 1" = 40'

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PHONE: (909) 941-7799, X11411
CONTACT PERSON: JOHNNY MURAD

PROPOSED HYDROLOGY MAP
FOR
CORE 5 - ETHANAC BUSINESS PARK
BUILDING 1
CITY OF MENIFEE

HUITT-ZOLLARS

HUITT-ZOLLARS, INC.
3990 CONCOURSE, SUITE 330 * ONTARIO, CALIFORNIA 91764 * (909) 941-7799

DESIGNED BY	HZ STAFF
DRAWN BY	HZ STAFF
CHECKED BY	J.M.
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Appendix B
100-year Rational Method Hydrologic Analysis

Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
Rational Hydrology Study Date: 08/18/23 File:5288Q100P.out

CORE5 - ETHANAC BUSINESS PARK
100 YEAR STORM EVENT PROPOSED RATIONAL
5288Q100P
DS

********* Hydrology Study Control Information **********

English (in-lb) Units used in input data file

Program License Serial Number 6145

Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) = 100.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation = 0.506(In.)
100 year, 1 hour precipitation = 1.590(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity = 1.590(In/Hr)
Slope of intensity duration curve = 0.5000

++

Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 394.000(Ft.)
Top (of initial area) elevation = 1433.670(Ft.)
Bottom (of initial area) elevation = 1428.400(Ft.)
Difference in elevation = 5.270(Ft.)
Slope = 0.01338 s(percent)= 1.34
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 7.763 min.
Rainfall intensity = 4.420(In/Hr) for a 100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.889
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Initial subarea runoff = 6.486(CFS)
Total initial stream area = 1.650(Ac.)
Pervious area fraction = 0.100

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.000 to Point/Station        3.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
----------------------------------------------------------------------------
Upstream point/station elevation =  1423.900(Ft.)
Downstream point/station elevation =  1422.500(Ft.)
Pipe length  =   289.00(Ft.)   Manning's N = 0.012
No. of pipes = 1  Required pipe flow  =     6.486(CFS)
Nearest computed pipe diameter  =     18.00(In.)
Calculated individual pipe flow  =     6.486(CFS)
Normal flow depth in pipe =   12.40(In.)
Flow top width inside pipe =   16.67(In.)
Critical Depth =   11.83(In.)
Pipe flow velocity =      5.00(Ft/s)
Travel time through pipe =    0.96 min.
Time of concentration (TC) =     8.73 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.000 to Point/Station        3.000
**** SUBAREA FLOW ADDITION ****
----------------------------------------------------------------------------
COMMERCIAL subarea type
Runoff Coefficient = 0.889
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =     8.73 min.
Rainfall intensity =      4.169(In/Hr) for a   100.0 year storm
Subarea runoff =      2.038(CFS) for      0.550(Ac.)
Total runoff =      8.524(CFS)   Total area =       2.200(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.000 to Point/Station        4.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
----------------------------------------------------------------------------
Upstream point/station elevation =  1422.500(Ft.)
Downstream point/station elevation =  1419.700(Ft.)
Pipe length  =   559.00(Ft.)   Manning's N = 0.012
No. of pipes = 1  Required pipe flow  =     8.524(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =     8.524(CFS)
Normal flow depth in pipe =   12.96(In.)
Flow top width inside pipe =   20.42(In.)
Critical Depth =   13.01(In.)
Pipe flow velocity =      5.47(Ft/s)
Travel time through pipe =    1.70 min.
Time of concentration (TC) =    10.43 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        4.000 to Point/Station        4.000
**** SUBAREA FLOW ADDITION ****
----------------------------------------------------------------------------
COMMERCIAL subarea type
Runoff Coefficient = 0.888
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
```

```
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    10.43 min.
Rainfall intensity =      3.813(In/Hr) for a   100.0 year storm
Subarea runoff =     10.563(CFS) for      3.120(Ac.)
Total runoff =     19.086(CFS)   Total area =       5.320(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        4.000 to Point/Station        5.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =  1419.700(Ft.)
Downstream point/station elevation =  1419.500(Ft.)
Pipe length  =    28.00(Ft.)   Manning's N = 0.012
No. of pipes = 1  Required pipe flow  =    19.086(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    19.086(CFS)
Normal flow depth in pipe =   18.16(In.)
Flow top width inside pipe =   20.59(In.)
Critical Depth =   18.84(In.)
Pipe flow velocity =      7.48(Ft/s)
Travel time through pipe =    0.06 min.
Time of concentration (TC) =    10.49 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        5.000 to Point/Station        5.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 1 in normal stream number 1
Stream flow area =      5.320(Ac.)
Runoff from this stream =     19.086(CFS)
Time of concentration =   10.49 min.
Rainfall intensity =     3.802(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       11.000 to Point/Station       12.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =   385.000(Ft.)
Top (of initial area) elevation =  1433.670(Ft.)
Bottom (of initial area) elevation =  1429.800(Ft.)
Difference in elevation =     3.870(Ft.)
Slope =    0.01005  s(percent)=       1.01
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    8.144 min.
Rainfall intensity =      4.316(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.889
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      6.944(CFS)
Total initial stream area =        1.810(Ac.)
Pervious area fraction = 0.100
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       12.000 to Point/Station       13.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
------------------------------------------------------------------------------
Upstream point/station elevation =  1425.300(Ft.)
Downstream point/station elevation =  1423.700(Ft.)
Pipe length  =   329.00(Ft.)   Manning's N = 0.012
No. of pipes = 1  Required pipe flow  =     6.944(CFS)
Nearest computed pipe diameter  =     18.00(In.)
Calculated individual pipe flow  =     6.944(CFS)
Normal flow depth in pipe =   13.05(In.)
Flow top width inside pipe =   16.07(In.)
Critical Depth =   12.25(In.)
Pipe flow velocity =      5.06(Ft/s)
Travel time through pipe =    1.08 min.
Time of concentration (TC) =     9.23 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       13.000 to Point/Station       13.000
**** SUBAREA FLOW ADDITION ****
------------------------------------------------------------------------------
COMMERCIAL subarea type
Runoff Coefficient = 0.888
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =     9.23 min.
Rainfall intensity =      4.055(In/Hr) for a   100.0 year storm
Subarea runoff =      2.954(CFS) for      0.820(Ac.)
Total runoff =      9.898(CFS)   Total area =       2.630(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       13.000 to Point/Station       14.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
------------------------------------------------------------------------------
Upstream point/station elevation =  1423.700(Ft.)
Downstream point/station elevation =  1419.700(Ft.)
Pipe length  =   614.00(Ft.)   Manning's N = 0.012
No. of pipes = 1  Required pipe flow  =     9.898(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =     9.898(CFS)
Normal flow depth in pipe =   13.13(In.)
Flow top width inside pipe =   20.33(In.)
Critical Depth =   14.06(In.)
Pipe flow velocity =      6.26(Ft/s)
Travel time through pipe =    1.63 min.
Time of concentration (TC) =    10.86 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       14.000 to Point/Station       14.000
**** SUBAREA FLOW ADDITION ****
------------------------------------------------------------------------------
COMMERCIAL subarea type
Runoff Coefficient = 0.888
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
```

```
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    10.86 min.
Rainfall intensity =      3.737(In/Hr) for a   100.0 year storm
Subarea runoff =     11.708(CFS) for      3.530(Ac.)
Total runoff =     21.606(CFS)    Total area =       6.160(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       14.000 to Point/Station        5.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =  1419.700(Ft.)
Downstream point/station elevation =  1419.500(Ft.)
Pipe length  =    28.00(Ft.)   Manning's N = 0.012
No. of pipes = 1  Required pipe flow  =    21.606(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    21.606(CFS)
Normal flow depth in pipe =   20.77(In.)
Flow top width inside pipe =   16.39(In.)
Critical Depth =   19.93(In.)
Pipe flow velocity =      7.48(Ft/s)
Travel time through pipe =    0.06 min.
Time of concentration (TC) =    10.92 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        5.000 to Point/Station        5.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 1 in normal stream number 2
Stream flow area =      6.160(Ac.)
Runoff from this stream =     21.606(CFS)
Time of concentration =   10.92 min.
Rainfall intensity =     3.726(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       19.086     10.49                3.802
2       21.606     10.92                3.726
Largest stream flow has longer time of concentration
Qp =     21.606 + sum of
         Qb         Ia/Ib
         19.086 *    0.980 =     18.706
Qp =     40.312

Total of 2 streams to confluence:
Flow rates before confluence point:
      19.086      21.606
Area of streams before confluence:
        5.320        6.160
Results of confluence:
Total flow rate =     40.312(CFS)
Time of concentration =    10.924 min.
Effective stream area after confluence =     11.480(Ac.)
End of computations, total study area =           11.48 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
```

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number = 69.0

Appendix C
100-year Unit Hydrographs

U n i t H y d r o g r a p h A n a l y s i s

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Study date 08/24/23 File: 5288q100euh1100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6145

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

CORE5 - ETHANAC BUSINESS PARK
100 YEAR STORM EVENT EXISTING UNIT HYDROGRAPH
5288100EUH
DS

Drainage Area = 11.47(Ac.) = 0.018 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 11.47(Ac.) = 0.018 Sq. Mi.
Length along longest watercourse = 602.00(Ft.)
Length along longest watercourse measured to centroid = 301.00(Ft.)
Length along longest watercourse = 0.114 Mi.
Length along longest watercourse measured to centroid = 0.057 Mi.
Difference in elevation = 3.60(Ft.)
Slope along watercourse = 31.5748 Ft./Mi.
Average Manning's 'N' = 0.300
Lag time = 0.551 Hr.
Lag time = 33.08 Min.
25% of lag time = 8.27 Min.
40% of lag time = 13.23 Min.
Unit time = 5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
11.47	0.51	5.80

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
11.47	1.59	18.24

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 0.506(In)
Area Averaged 100-Year Rainfall = 1.590(In)

Point rain (area averaged) = 1.590(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 1.590(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
11.470	86.00	0.000

Total Area Entered = 11.47(Ac.)

RI AMC2	RI AMC-2	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
86.0	86.0	0.176	0.000	0.176	1.000	0.176
					Sum (F) =	0.176

Area averaged mean soil loss (F) (In/Hr) = 0.176
Minimum soil loss rate ((In/Hr)) = 0.088
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

Slope of intensity-duration curve for a 1 hour storm =0.5000

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	15.117	1.310	0.151
2	0.167	30.234	3.241	0.375
3	0.250	45.350	5.409	0.625
4	0.333	60.467	7.507	0.868
5	0.417	75.584	9.697	1.121
6	0.500	90.701	10.699	1.237
7	0.583	105.818	10.668	1.233
8	0.667	120.935	8.379	0.969
9	0.750	136.051	6.160	0.712
10	0.833	151.168	4.677	0.541
11	0.917	166.285	3.555	0.411
12	1.000	181.402	2.772	0.320
13	1.083	196.519	2.293	0.265
14	1.167	211.636	2.112	0.244
15	1.250	226.752	1.823	0.211
16	1.333	241.869	1.630	0.188
17	1.417	256.986	1.492	0.173
18	1.500	272.103	1.357	0.157
19	1.583	287.220	1.251	0.145
20	1.667	302.337	1.091	0.126
21	1.750	317.453	0.972	0.112
22	1.833	332.570	0.907	0.105
23	1.917	347.687	0.907	0.105
24	2.000	362.804	0.820	0.095
25	2.083	377.921	0.668	0.077
26	2.167	393.038	0.665	0.077
27	2.250	408.154	0.639	0.074
28	2.333	423.271	0.503	0.058
29	2.417	438.388	0.484	0.056
30	2.500	453.505	0.483	0.056
31	2.583	468.622	0.462	0.053
32	2.667	483.739	0.454	0.052

33	2.750	498.855	0.454	0.052
34	2.833	513.972	0.402	0.046
35	2.917	529.089	0.333	0.038
36	3.000	544.206	0.333	0.038
37	3.083	559.323	0.321	0.037
38	3.167	574.439	0.277	0.032
39	3.250	589.556	0.272	0.031
40	3.333	604.673	0.269	0.031
41	3.417	619.790	0.226	0.026
42	3.500	634.907	0.212	0.024
43	3.583	650.024	0.212	0.024
44	3.667	665.140	0.181	0.021
45	3.750	680.257	0.151	0.017
46	3.833	695.374	0.151	0.017
47	3.917	710.491	0.151	0.017
48	4.000	725.608	0.151	0.017
49	4.083	740.725	0.151	0.017
50	4.167	755.841	0.151	0.017
51	4.250	770.958	0.151	0.017
52	4.333	786.075	0.151	0.017
53	4.417	801.192	0.215	0.025
		Sum = 100.000	Sum=	11.560

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	4.20	0.801	0.176	---	0.63
2	0.17	4.30	0.820	0.176	---	0.64
3	0.25	5.00	0.954	0.176	---	0.78
4	0.33	5.00	0.954	0.176	---	0.78
5	0.42	5.80	1.107	0.176	---	0.93
6	0.50	6.50	1.240	0.176	---	1.06
7	0.58	7.40	1.412	0.176	---	1.24
8	0.67	8.60	1.641	0.176	---	1.47
9	0.75	12.30	2.347	0.176	---	2.17
10	0.83	29.10	5.552	0.176	---	5.38
11	0.92	6.80	1.297	0.176	---	1.12
12	1.00	5.00	0.954	0.176	---	0.78
Sum =		100.0			Sum =	17.0

Flood volume = Effective rainfall 1.41(In)
times area 11.5(Ac.)/[(In)/(Ft.)] = 1.4(Ac.Ft)
Total soil loss = 0.18(In)
Total soil loss = 0.168(Ac.Ft)
Total rainfall = 1.59(In)
Flood volume = 58883.2 Cubic Feet
Total soil loss = 7311.3 Cubic Feet

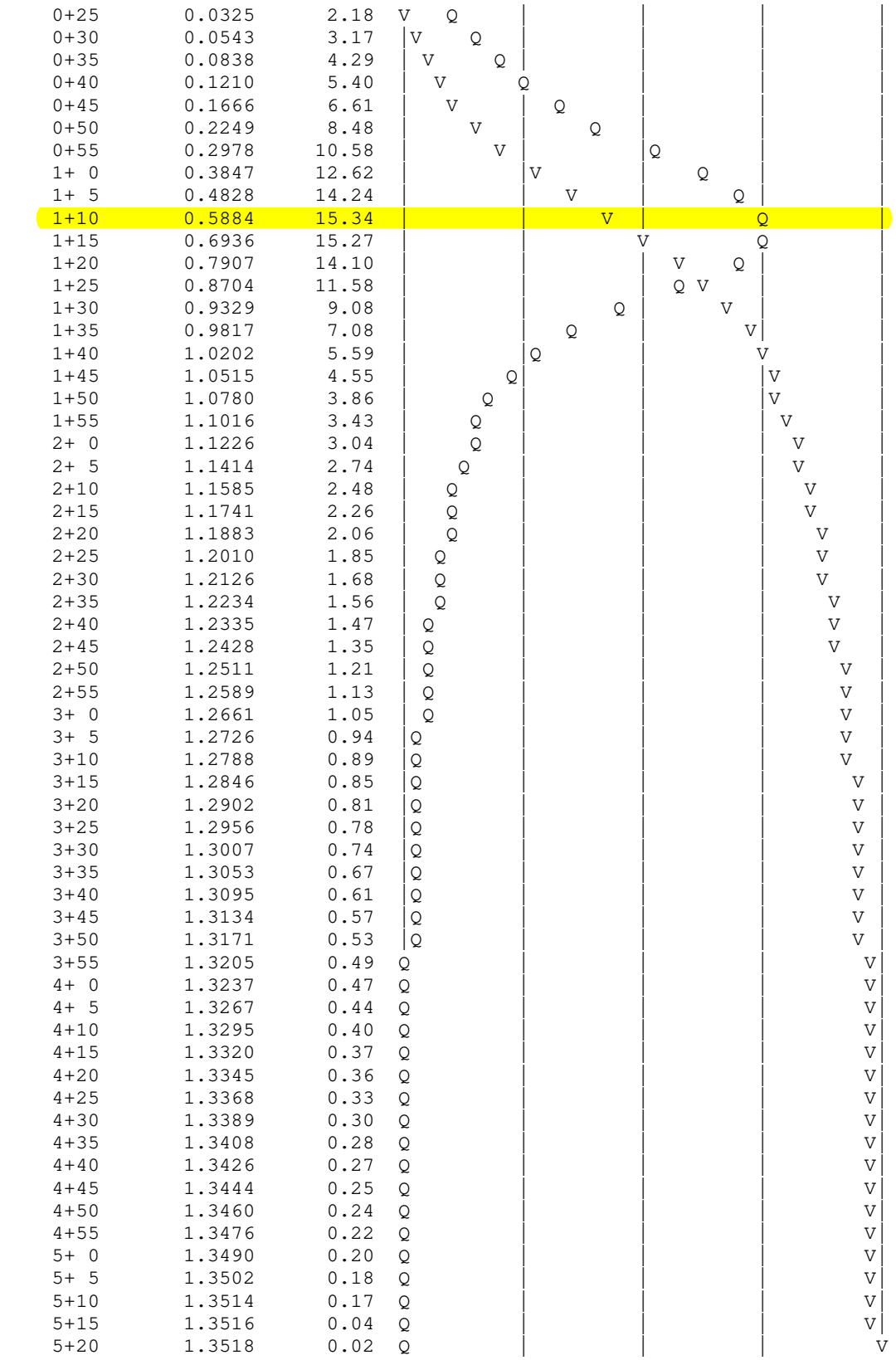
Peak flow rate of this hydrograph = 15.338(CFS)

++

1 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	5.0	10.0	15.0	20.0
0+ 5	0.0007	0.09	Q	|	|	|	|
0+10	0.0029	0.33	Q	|	|	|	|
0+15	0.0081	0.75	VQ	|	|	|	|
0+20	0.0175	1.36	V Q	|	|	|	|



U n i t H y d r o g r a p h A n a l y s i s

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Study date 08/24/23 File: 5288q100euh24100.out

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English Rainfall Data (Inches) Input Values Used

English Units used in output format

CORE5 - ETHANAC BUSINESS PARK
100 YEAR STORM EVENT EXISTING UNIT HYDROGRAPH
5288100EUH
DS

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Drainage Area for Depth-Area Areal Adjustment = 11.47(Ac.) = 0.018 Sq. Mi.
Length along longest watercourse = 602.00(Ft.)
Length along longest watercourse measured to centroid = 301.00(Ft.)
Length along longest watercourse = 0.114 Mi.
Length along longest watercourse measured to centroid = 0.057 Mi.
Difference in elevation = 3.60(Ft.)
Slope along watercourse = 31.5748 Ft./Mi.
Average Manning's 'N' = 0.300
Lag time = 0.551 Hr.
Lag time = 33.08 Min.
25% of lag time = 8.27 Min.
40% of lag time = 13.23 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
11.47	2.05	23.51

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
11.47	5.33	61.14

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 2.050(In)
Area Averaged 100-Year Rainfall = 5.330(In)

Point rain (area averaged) = 5.330(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 5.330(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
11.470	86.00	0.000

Total Area Entered = 11.47(Ac.)

RI AMC2	RI AMC-2	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
86.0	86.0	0.176	0.000	0.176	1.000	0.176
					Sum (F) =	0.176

Area averaged mean soil loss (F) (In/Hr) = 0.176
Minimum soil loss rate ((In/Hr)) = 0.088
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	15.117	1.310	0.151
2	0.167	30.234	3.241	0.375
3	0.250	45.350	5.409	0.625
4	0.333	60.467	7.507	0.868
5	0.417	75.584	9.697	1.121
6	0.500	90.701	10.699	1.237
7	0.583	105.818	10.668	1.233
8	0.667	120.935	8.379	0.969
9	0.750	136.051	6.160	0.712
10	0.833	151.168	4.677	0.541
11	0.917	166.285	3.555	0.411
12	1.000	181.402	2.772	0.320
13	1.083	196.519	2.293	0.265
14	1.167	211.636	2.112	0.244
15	1.250	226.752	1.823	0.211
16	1.333	241.869	1.630	0.188
17	1.417	256.986	1.492	0.173
18	1.500	272.103	1.357	0.157
19	1.583	287.220	1.251	0.145
20	1.667	302.337	1.091	0.126
21	1.750	317.453	0.972	0.112
22	1.833	332.570	0.907	0.105
23	1.917	347.687	0.907	0.105
24	2.000	362.804	0.820	0.095
25	2.083	377.921	0.668	0.077
26	2.167	393.038	0.665	0.077
27	2.250	408.154	0.639	0.074
28	2.333	423.271	0.503	0.058
29	2.417	438.388	0.484	0.056
30	2.500	453.505	0.483	0.056
31	2.583	468.622	0.462	0.053
32	2.667	483.739	0.454	0.052
33	2.750	498.855	0.454	0.052
34	2.833	513.972	0.402	0.046

35	2.917	529.089	0.333	0.038
36	3.000	544.206	0.333	0.038
37	3.083	559.323	0.321	0.037
38	3.167	574.439	0.277	0.032
39	3.250	589.556	0.272	0.031
40	3.333	604.673	0.269	0.031
41	3.417	619.790	0.226	0.026
42	3.500	634.907	0.212	0.024
43	3.583	650.024	0.212	0.024
44	3.667	665.140	0.181	0.021
45	3.750	680.257	0.151	0.017
46	3.833	695.374	0.151	0.017
47	3.917	710.491	0.151	0.017
48	4.000	725.608	0.151	0.017
49	4.083	740.725	0.151	0.017
50	4.167	755.841	0.151	0.017
51	4.250	770.958	0.151	0.017
52	4.333	786.075	0.151	0.017
53	4.417	801.192	0.215	0.025
			Sum = 100.000 Sum=	11.560

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.043	0.311	0.038	0.00
2	0.17	0.07	0.043	0.310	0.038	0.00
3	0.25	0.07	0.043	0.309	0.038	0.00
4	0.33	0.10	0.064	0.308	0.058	0.01
5	0.42	0.10	0.064	0.306	0.058	0.01
6	0.50	0.10	0.064	0.305	0.058	0.01
7	0.58	0.10	0.064	0.304	0.058	0.01
8	0.67	0.10	0.064	0.303	0.058	0.01
9	0.75	0.10	0.064	0.302	0.058	0.01
10	0.83	0.13	0.085	0.301	0.077	0.01
11	0.92	0.13	0.085	0.299	0.077	0.01
12	1.00	0.13	0.085	0.298	0.077	0.01
13	1.08	0.10	0.064	0.297	0.058	0.01
14	1.17	0.10	0.064	0.296	0.058	0.01
15	1.25	0.10	0.064	0.295	0.058	0.01
16	1.33	0.10	0.064	0.293	0.058	0.01
17	1.42	0.10	0.064	0.292	0.058	0.01
18	1.50	0.10	0.064	0.291	0.058	0.01
19	1.58	0.10	0.064	0.290	0.058	0.01
20	1.67	0.10	0.064	0.289	0.058	0.01
21	1.75	0.10	0.064	0.288	0.058	0.01
22	1.83	0.13	0.085	0.287	0.077	0.01
23	1.92	0.13	0.085	0.285	0.077	0.01
24	2.00	0.13	0.085	0.284	0.077	0.01
25	2.08	0.13	0.085	0.283	0.077	0.01
26	2.17	0.13	0.085	0.282	0.077	0.01
27	2.25	0.13	0.085	0.281	0.077	0.01
28	2.33	0.13	0.085	0.280	0.077	0.01
29	2.42	0.13	0.085	0.278	0.077	0.01
30	2.50	0.13	0.085	0.277	0.077	0.01
31	2.58	0.17	0.107	0.276	0.096	0.01
32	2.67	0.17	0.107	0.275	0.096	0.01
33	2.75	0.17	0.107	0.274	0.096	0.01
34	2.83	0.17	0.107	0.273	0.096	0.01
35	2.92	0.17	0.107	0.272	0.096	0.01
36	3.00	0.17	0.107	0.271	0.096	0.01
37	3.08	0.17	0.107	0.269	0.096	0.01
38	3.17	0.17	0.107	0.268	0.096	0.01

39	3.25	0.17	0.107	0.267	0.096	0.01
40	3.33	0.17	0.107	0.266	0.096	0.01
41	3.42	0.17	0.107	0.265	0.096	0.01
42	3.50	0.17	0.107	0.264	0.096	0.01
43	3.58	0.17	0.107	0.263	0.096	0.01
44	3.67	0.17	0.107	0.262	0.096	0.01
45	3.75	0.17	0.107	0.261	0.096	0.01
46	3.83	0.20	0.128	0.259	0.115	0.01
47	3.92	0.20	0.128	0.258	0.115	0.01
48	4.00	0.20	0.128	0.257	0.115	0.01
49	4.08	0.20	0.128	0.256	0.115	0.01
50	4.17	0.20	0.128	0.255	0.115	0.01
51	4.25	0.20	0.128	0.254	0.115	0.01
52	4.33	0.23	0.149	0.253	0.134	0.01
53	4.42	0.23	0.149	0.252	0.134	0.01
54	4.50	0.23	0.149	0.251	0.134	0.01
55	4.58	0.23	0.149	0.250	0.134	0.01
56	4.67	0.23	0.149	0.249	0.134	0.01
57	4.75	0.23	0.149	0.248	0.134	0.01
58	4.83	0.27	0.171	0.246	0.154	0.02
59	4.92	0.27	0.171	0.245	0.154	0.02
60	5.00	0.27	0.171	0.244	0.154	0.02
61	5.08	0.20	0.128	0.243	0.115	0.01
62	5.17	0.20	0.128	0.242	0.115	0.01
63	5.25	0.20	0.128	0.241	0.115	0.01
64	5.33	0.23	0.149	0.240	0.134	0.01
65	5.42	0.23	0.149	0.239	0.134	0.01
66	5.50	0.23	0.149	0.238	0.134	0.01
67	5.58	0.27	0.171	0.237	0.154	0.02
68	5.67	0.27	0.171	0.236	0.154	0.02
69	5.75	0.27	0.171	0.235	0.154	0.02
70	5.83	0.27	0.171	0.234	0.154	0.02
71	5.92	0.27	0.171	0.233	0.154	0.02
72	6.00	0.27	0.171	0.232	0.154	0.02
73	6.08	0.30	0.192	0.231	0.173	0.02
74	6.17	0.30	0.192	0.230	0.173	0.02
75	6.25	0.30	0.192	0.229	0.173	0.02
76	6.33	0.30	0.192	0.228	0.173	0.02
77	6.42	0.30	0.192	0.227	0.173	0.02
78	6.50	0.30	0.192	0.226	0.173	0.02
79	6.58	0.33	0.213	0.225	0.192	0.02
80	6.67	0.33	0.213	0.224	0.192	0.02
81	6.75	0.33	0.213	0.223	0.192	0.02
82	6.83	0.33	0.213	0.222	0.192	0.02
83	6.92	0.33	0.213	0.221	0.192	0.02
84	7.00	0.33	0.213	0.220	0.192	0.02
85	7.08	0.33	0.213	0.219	0.192	0.02
86	7.17	0.33	0.213	0.218	0.192	0.02
87	7.25	0.33	0.213	0.217	0.192	0.02
88	7.33	0.37	0.235	0.216	---	0.02
89	7.42	0.37	0.235	0.215	---	0.02
90	7.50	0.37	0.235	0.214	---	0.02
91	7.58	0.40	0.256	0.213	---	0.04
92	7.67	0.40	0.256	0.212	---	0.04
93	7.75	0.40	0.256	0.211	---	0.05
94	7.83	0.43	0.277	0.210	---	0.07
95	7.92	0.43	0.277	0.209	---	0.07
96	8.00	0.43	0.277	0.208	---	0.07
97	8.08	0.50	0.320	0.207	---	0.11
98	8.17	0.50	0.320	0.206	---	0.11
99	8.25	0.50	0.320	0.205	---	0.11
100	8.33	0.50	0.320	0.204	---	0.12
101	8.42	0.50	0.320	0.203	---	0.12

102	8.50	0.50	0.320	0.202	---	0.12
103	8.58	0.53	0.341	0.201	---	0.14
104	8.67	0.53	0.341	0.200	---	0.14
105	8.75	0.53	0.341	0.199	---	0.14
106	8.83	0.57	0.362	0.198	---	0.16
107	8.92	0.57	0.362	0.197	---	0.17
108	9.00	0.57	0.362	0.196	---	0.17
109	9.08	0.63	0.405	0.195	---	0.21
110	9.17	0.63	0.405	0.195	---	0.21
111	9.25	0.63	0.405	0.194	---	0.21
112	9.33	0.67	0.426	0.193	---	0.23
113	9.42	0.67	0.426	0.192	---	0.23
114	9.50	0.67	0.426	0.191	---	0.24
115	9.58	0.70	0.448	0.190	---	0.26
116	9.67	0.70	0.448	0.189	---	0.26
117	9.75	0.70	0.448	0.188	---	0.26
118	9.83	0.73	0.469	0.187	---	0.28
119	9.92	0.73	0.469	0.186	---	0.28
120	10.00	0.73	0.469	0.185	---	0.28
121	10.08	0.50	0.320	0.185	---	0.14
122	10.17	0.50	0.320	0.184	---	0.14
123	10.25	0.50	0.320	0.183	---	0.14
124	10.33	0.50	0.320	0.182	---	0.14
125	10.42	0.50	0.320	0.181	---	0.14
126	10.50	0.50	0.320	0.180	---	0.14
127	10.58	0.67	0.426	0.179	---	0.25
128	10.67	0.67	0.426	0.178	---	0.25
129	10.75	0.67	0.426	0.177	---	0.25
130	10.83	0.67	0.426	0.177	---	0.25
131	10.92	0.67	0.426	0.176	---	0.25
132	11.00	0.67	0.426	0.175	---	0.25
133	11.08	0.63	0.405	0.174	---	0.23
134	11.17	0.63	0.405	0.173	---	0.23
135	11.25	0.63	0.405	0.172	---	0.23
136	11.33	0.63	0.405	0.171	---	0.23
137	11.42	0.63	0.405	0.171	---	0.23
138	11.50	0.63	0.405	0.170	---	0.24
139	11.58	0.57	0.362	0.169	---	0.19
140	11.67	0.57	0.362	0.168	---	0.19
141	11.75	0.57	0.362	0.167	---	0.20
142	11.83	0.60	0.384	0.166	---	0.22
143	11.92	0.60	0.384	0.166	---	0.22
144	12.00	0.60	0.384	0.165	---	0.22
145	12.08	0.83	0.533	0.164	---	0.37
146	12.17	0.83	0.533	0.163	---	0.37
147	12.25	0.83	0.533	0.162	---	0.37
148	12.33	0.87	0.554	0.161	---	0.39
149	12.42	0.87	0.554	0.161	---	0.39
150	12.50	0.87	0.554	0.160	---	0.39
151	12.58	0.93	0.597	0.159	---	0.44
152	12.67	0.93	0.597	0.158	---	0.44
153	12.75	0.93	0.597	0.157	---	0.44
154	12.83	0.97	0.618	0.157	---	0.46
155	12.92	0.97	0.618	0.156	---	0.46
156	13.00	0.97	0.618	0.155	---	0.46
157	13.08	1.13	0.725	0.154	---	0.57
158	13.17	1.13	0.725	0.154	---	0.57
159	13.25	1.13	0.725	0.153	---	0.57
160	13.33	1.13	0.725	0.152	---	0.57
161	13.42	1.13	0.725	0.151	---	0.57
162	13.50	1.13	0.725	0.150	---	0.57
163	13.58	0.77	0.490	0.150	---	0.34
164	13.67	0.77	0.490	0.149	---	0.34

165	13.75	0.77	0.490	0.148	---	0.34
166	13.83	0.77	0.490	0.147	---	0.34
167	13.92	0.77	0.490	0.147	---	0.34
168	14.00	0.77	0.490	0.146	---	0.34
169	14.08	0.90	0.576	0.145	---	0.43
170	14.17	0.90	0.576	0.144	---	0.43
171	14.25	0.90	0.576	0.144	---	0.43
172	14.33	0.87	0.554	0.143	---	0.41
173	14.42	0.87	0.554	0.142	---	0.41
174	14.50	0.87	0.554	0.141	---	0.41
175	14.58	0.87	0.554	0.141	---	0.41
176	14.67	0.87	0.554	0.140	---	0.41
177	14.75	0.87	0.554	0.139	---	0.42
178	14.83	0.83	0.533	0.139	---	0.39
179	14.92	0.83	0.533	0.138	---	0.40
180	15.00	0.83	0.533	0.137	---	0.40
181	15.08	0.80	0.512	0.136	---	0.38
182	15.17	0.80	0.512	0.136	---	0.38
183	15.25	0.80	0.512	0.135	---	0.38
184	15.33	0.77	0.490	0.134	---	0.36
185	15.42	0.77	0.490	0.134	---	0.36
186	15.50	0.77	0.490	0.133	---	0.36
187	15.58	0.63	0.405	0.132	---	0.27
188	15.67	0.63	0.405	0.132	---	0.27
189	15.75	0.63	0.405	0.131	---	0.27
190	15.83	0.63	0.405	0.130	---	0.27
191	15.92	0.63	0.405	0.130	---	0.28
192	16.00	0.63	0.405	0.129	---	0.28
193	16.08	0.13	0.085	0.128	0.077	0.01
194	16.17	0.13	0.085	0.128	0.077	0.01
195	16.25	0.13	0.085	0.127	0.077	0.01
196	16.33	0.13	0.085	0.126	0.077	0.01
197	16.42	0.13	0.085	0.126	0.077	0.01
198	16.50	0.13	0.085	0.125	0.077	0.01
199	16.58	0.10	0.064	0.124	0.058	0.01
200	16.67	0.10	0.064	0.124	0.058	0.01
201	16.75	0.10	0.064	0.123	0.058	0.01
202	16.83	0.10	0.064	0.123	0.058	0.01
203	16.92	0.10	0.064	0.122	0.058	0.01
204	17.00	0.10	0.064	0.121	0.058	0.01
205	17.08	0.17	0.107	0.121	0.096	0.01
206	17.17	0.17	0.107	0.120	0.096	0.01
207	17.25	0.17	0.107	0.119	0.096	0.01
208	17.33	0.17	0.107	0.119	0.096	0.01
209	17.42	0.17	0.107	0.118	0.096	0.01
210	17.50	0.17	0.107	0.118	0.096	0.01
211	17.58	0.17	0.107	0.117	0.096	0.01
212	17.67	0.17	0.107	0.117	0.096	0.01
213	17.75	0.17	0.107	0.116	0.096	0.01
214	17.83	0.13	0.085	0.115	0.077	0.01
215	17.92	0.13	0.085	0.115	0.077	0.01
216	18.00	0.13	0.085	0.114	0.077	0.01
217	18.08	0.13	0.085	0.114	0.077	0.01
218	18.17	0.13	0.085	0.113	0.077	0.01
219	18.25	0.13	0.085	0.113	0.077	0.01
220	18.33	0.13	0.085	0.112	0.077	0.01
221	18.42	0.13	0.085	0.111	0.077	0.01
222	18.50	0.13	0.085	0.111	0.077	0.01
223	18.58	0.10	0.064	0.110	0.058	0.01
224	18.67	0.10	0.064	0.110	0.058	0.01
225	18.75	0.10	0.064	0.109	0.058	0.01
226	18.83	0.07	0.043	0.109	0.038	0.00
227	18.92	0.07	0.043	0.108	0.038	0.00

228	19.00	0.07	0.043	0.108	0.038	0.00
229	19.08	0.10	0.064	0.107	0.058	0.01
230	19.17	0.10	0.064	0.107	0.058	0.01
231	19.25	0.10	0.064	0.106	0.058	0.01
232	19.33	0.13	0.085	0.106	0.077	0.01
233	19.42	0.13	0.085	0.105	0.077	0.01
234	19.50	0.13	0.085	0.105	0.077	0.01
235	19.58	0.10	0.064	0.104	0.058	0.01
236	19.67	0.10	0.064	0.104	0.058	0.01
237	19.75	0.10	0.064	0.103	0.058	0.01
238	19.83	0.07	0.043	0.103	0.038	0.00
239	19.92	0.07	0.043	0.102	0.038	0.00
240	20.00	0.07	0.043	0.102	0.038	0.00
241	20.08	0.10	0.064	0.102	0.058	0.01
242	20.17	0.10	0.064	0.101	0.058	0.01
243	20.25	0.10	0.064	0.101	0.058	0.01
244	20.33	0.10	0.064	0.100	0.058	0.01
245	20.42	0.10	0.064	0.100	0.058	0.01
246	20.50	0.10	0.064	0.099	0.058	0.01
247	20.58	0.10	0.064	0.099	0.058	0.01
248	20.67	0.10	0.064	0.099	0.058	0.01
249	20.75	0.10	0.064	0.098	0.058	0.01
250	20.83	0.07	0.043	0.098	0.038	0.00
251	20.92	0.07	0.043	0.097	0.038	0.00
252	21.00	0.07	0.043	0.097	0.038	0.00
253	21.08	0.10	0.064	0.097	0.058	0.01
254	21.17	0.10	0.064	0.096	0.058	0.01
255	21.25	0.10	0.064	0.096	0.058	0.01
256	21.33	0.07	0.043	0.095	0.038	0.00
257	21.42	0.07	0.043	0.095	0.038	0.00
258	21.50	0.07	0.043	0.095	0.038	0.00
259	21.58	0.10	0.064	0.094	0.058	0.01
260	21.67	0.10	0.064	0.094	0.058	0.01
261	21.75	0.10	0.064	0.094	0.058	0.01
262	21.83	0.07	0.043	0.093	0.038	0.00
263	21.92	0.07	0.043	0.093	0.038	0.00
264	22.00	0.07	0.043	0.093	0.038	0.00
265	22.08	0.10	0.064	0.092	0.058	0.01
266	22.17	0.10	0.064	0.092	0.058	0.01
267	22.25	0.10	0.064	0.092	0.058	0.01
268	22.33	0.07	0.043	0.092	0.038	0.00
269	22.42	0.07	0.043	0.091	0.038	0.00
270	22.50	0.07	0.043	0.091	0.038	0.00
271	22.58	0.07	0.043	0.091	0.038	0.00
272	22.67	0.07	0.043	0.090	0.038	0.00
273	22.75	0.07	0.043	0.090	0.038	0.00
274	22.83	0.07	0.043	0.090	0.038	0.00
275	22.92	0.07	0.043	0.090	0.038	0.00
276	23.00	0.07	0.043	0.090	0.038	0.00
277	23.08	0.07	0.043	0.089	0.038	0.00
278	23.17	0.07	0.043	0.089	0.038	0.00
279	23.25	0.07	0.043	0.089	0.038	0.00
280	23.33	0.07	0.043	0.089	0.038	0.00
281	23.42	0.07	0.043	0.089	0.038	0.00
282	23.50	0.07	0.043	0.088	0.038	0.00
283	23.58	0.07	0.043	0.088	0.038	0.00
284	23.67	0.07	0.043	0.088	0.038	0.00
285	23.75	0.07	0.043	0.088	0.038	0.00
286	23.83	0.07	0.043	0.088	0.038	0.00
287	23.92	0.07	0.043	0.088	0.038	0.00
288	24.00	0.07	0.043	0.088	0.038	0.00
	Sum =	100.0			Sum =	30.9

Flood volume = Effective rainfall 2.58(In)

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 times area      11.5(Ac.)/[(In)/(Ft.)] =       2.5(Ac.Ft)
Total soil loss =      2.75(In)
Total soil loss =     2.633(Ac.Ft)
Total rainfall =      5.33(In)
Flood volume =      107237.1 Cubic Feet
Total soil loss =      114678.3 Cubic Feet
------------------------------------------------------------------------
 Peak flow rate of this hydrograph =      5.489(CFS)
------------------------------------------------------------------------
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                    24 - H O U R    S T O R M
                 R u n o f f      H y d r o g r a p h
------------------------------------------------------------------------
             Hydrograph in   5   Minute intervals ((CFS))

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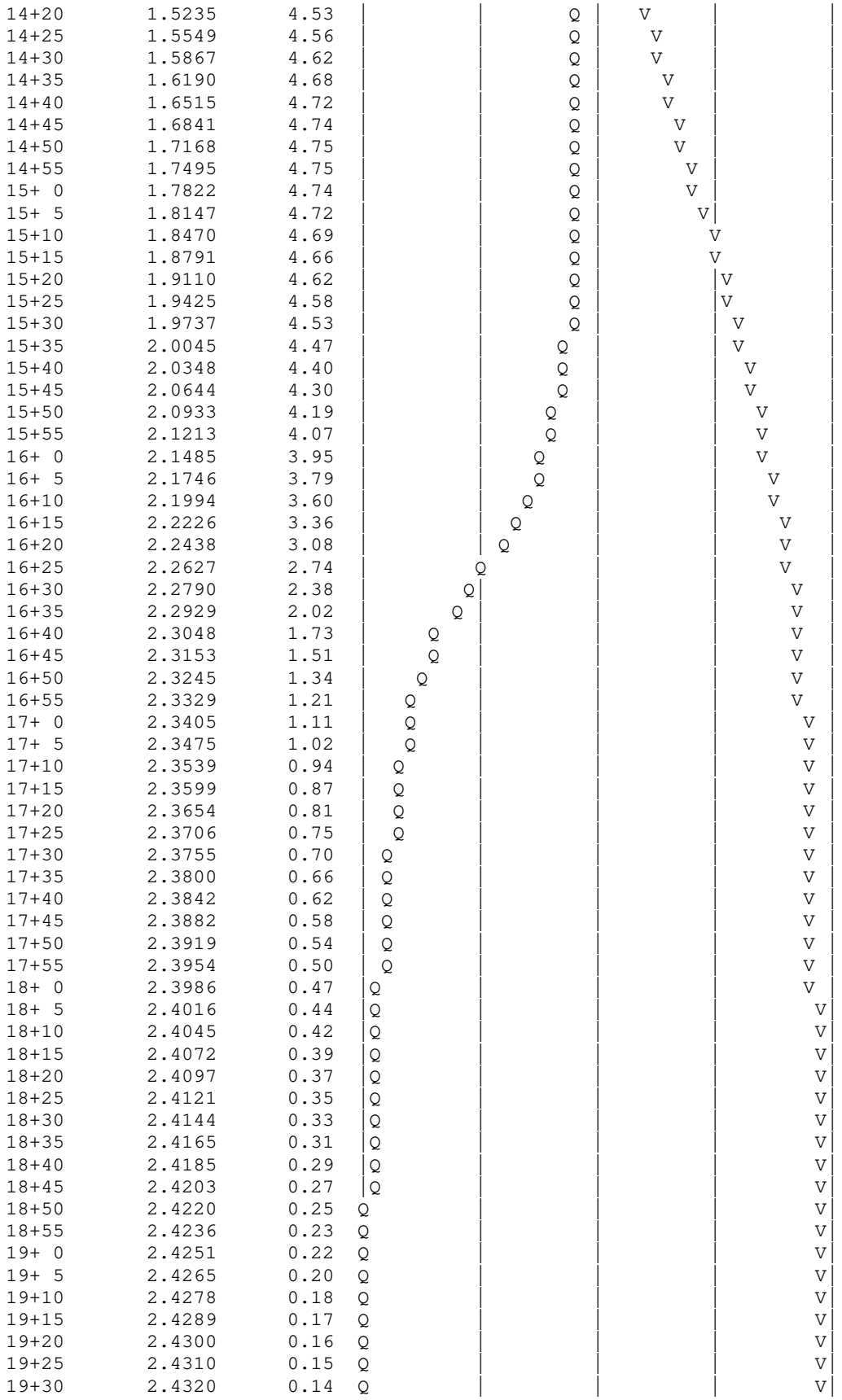
Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0000	0.00	Q				
0+10	0.0000	0.00	Q				
0+15	0.0001	0.00	Q				
0+20	0.0001	0.01	Q				
0+25	0.0002	0.01	Q				
0+30	0.0004	0.02	Q				
0+35	0.0006	0.03	Q				
0+40	0.0008	0.03	Q				
0+45	0.0011	0.04	Q				
0+50	0.0014	0.05	Q				
0+55	0.0017	0.05	Q				
1+ 0	0.0021	0.05	Q				
1+ 5	0.0025	0.06	Q				
1+10	0.0029	0.06	Q				
1+15	0.0034	0.06	Q				
1+20	0.0038	0.07	Q				
1+25	0.0043	0.07	Q				
1+30	0.0048	0.07	Q				
1+35	0.0052	0.07	Q				
1+40	0.0057	0.07	Q				
1+45	0.0062	0.07	Q				
1+50	0.0066	0.07	Q				
1+55	0.0071	0.07	Q				
2+ 0	0.0076	0.07	Q				
2+ 5	0.0081	0.07	Q				
2+10	0.0086	0.08	Q				
2+15	0.0092	0.08	Q				
2+20	0.0097	0.08	Q				
2+25	0.0103	0.08	Q				
2+30	0.0109	0.09	Q				
2+35	0.0115	0.09	Q				
2+40	0.0121	0.09	Q				
2+45	0.0127	0.09	Q				
2+50	0.0134	0.09	Q				
2+55	0.0141	0.10	Q				
3+ 0	0.0147	0.10	Q				
3+ 5	0.0155	0.10	Q				
3+10	0.0162	0.11	Q				
3+15	0.0169	0.11	Q				
3+20	0.0177	0.11	Q				
3+25	0.0185	0.11	Q				
3+30	0.0193	0.11	Q				
3+35	0.0200	0.11	Q				
3+40	0.0208	0.11	Q				
3+45	0.0216	0.12	Q				

3+50	0.0224	0.12	Q	|	|	|	|
3+55	0.0232	0.12	Q	|	|	|	|
4+ 0	0.0241	0.12	Q	|	|	|	|
4+ 5	0.0249	0.12	Q	|	|	|	|
4+10	0.0258	0.12	Q	|	|	|	|
4+15	0.0266	0.13	Q	|	|	|	|
4+20	0.0275	0.13	Q	|	|	|	|
4+25	0.0285	0.13	Q	|	|	|	|
4+30	0.0294	0.14	Q	|	|	|	|
4+35	0.0304	0.14	Q	|	|	|	|
4+40	0.0314	0.14	Q	|	|	|	|
4+45	0.0324	0.15	Q	|	|	|	|
4+50	0.0335	0.15	Q	|	|	|	|
4+55	0.0345	0.16	Q	|	|	|	|
5+ 0	0.0356	0.16	Q	|	|	|	|
5+ 5	0.0367	0.16	Q	|	|	|	|
5+10	0.0379	0.16	Q	|	|	|	|
5+15	0.0390	0.17	Q	|	|	|	|
5+20	0.0402	0.17	Q	|	|	|	|
5+25	0.0413	0.16	Q	|	|	|	|
5+30	0.0424	0.16	Q	|	|	|	|
5+35	0.0435	0.16	Q	|	|	|	|
5+40	0.0446	0.16	Q	|	|	|	|
5+45	0.0458	0.16	Q	|	|	|	|
5+50	0.0469	0.17	Q	|	|	|	|
5+55	0.0481	0.17	Q	|	|	|	|
6+ 0	0.0493	0.18	Q	|	|	|	|
6+ 5	0.0506	0.18	Q	|	|	|	|
6+10	0.0518	0.18	Q	|	|	|	|
6+15	0.0531	0.19	Q	|	|	|	|
6+20	0.0544	0.19	Q	|	|	|	|
6+25	0.0557	0.19	Q	|	|	|	|
6+30	0.0571	0.20	Q	|	|	|	|
6+35	0.0585	0.20	Q	|	|	|	|
6+40	0.0599	0.20	Q	|	|	|	|
6+45	0.0613	0.21	Q	|	|	|	|
6+50	0.0628	0.21	QV	|	|	|	|
6+55	0.0643	0.22	QV	|	|	|	|
7+ 0	0.0658	0.22	QV	|	|	|	|
7+ 5	0.0673	0.22	QV	|	|	|	|
7+10	0.0689	0.23	QV	|	|	|	|
7+15	0.0704	0.23	QV	|	|	|	|
7+20	0.0720	0.23	QV	|	|	|	|
7+25	0.0736	0.23	QV	|	|	|	|
7+30	0.0752	0.23	QV	|	|	|	|
7+35	0.0768	0.23	QV	|	|	|	|
7+40	0.0785	0.24	QV	|	|	|	|
7+45	0.0802	0.26	|Q	|	|	|	|
7+50	0.0822	0.28	|Q	|	|	|	|
7+55	0.0844	0.32	|Q	|	|	|	|
8+ 0	0.0869	0.36	|Q	|	|	|	|
8+ 5	0.0897	0.42	|Q	|	|	|	|
8+10	0.0931	0.49	|Q	|	|	|	|
8+15	0.0970	0.56	|VQ	|	|	|	|
8+20	0.1014	0.65	|VQ	|	|	|	|
8+25	0.1065	0.73	|VQ	|	|	|	|
8+30	0.1121	0.82	|V Q	|	|	|	|
8+35	0.1183	0.90	|V Q	|	|	|	|
8+40	0.1250	0.97	| VQ	|	|	|	|
8+45	0.1321	1.03	| V Q	|	|	|	|
8+50	0.1396	1.10	| V Q	|	|	|	|
8+55	0.1477	1.17	| V Q	|	|	|	|
9+ 0	0.1562	1.24	| V Q	|	|	|	|

9+ 5	0.1653	1.32	V Q				
9+10	0.1749	1.40	V Q				
9+15	0.1852	1.50	V Q				
9+20	0.1962	1.60	V Q				
9+25	0.2080	1.70	V Q				
9+30	0.2205	1.81	V Q				
9+35	0.2337	1.93	V Q				
9+40	0.2477	2.03	V Q				
9+45	0.2624	2.13	V Q				
9+50	0.2778	2.23	V Q				
9+55	0.2938	2.33	V Q				
10+ 0	0.3105	2.42	V Q				
10+ 5	0.3276	2.49	V Q				
10+10	0.3449	2.52	V Q				
10+15	0.3622	2.50	V Q				
10+20	0.3790	2.45	V Q				
10+25	0.3951	2.34	V Q				
10+30	0.4103	2.21	V Q				
10+35	0.4247	2.08	V Q				
10+40	0.4386	2.02	VQ				
10+45	0.4525	2.02	VQ				
10+50	0.4667	2.06	VQ				
10+55	0.4816	2.15	VQ				
11+ 0	0.4972	2.27	VQ				
11+ 5	0.5136	2.38	VQ				
11+10	0.5306	2.47	VQ				
11+15	0.5480	2.53	V Q				
11+20	0.5657	2.56	VQ				
11+25	0.5834	2.58	VQ				
11+30	0.6012	2.59	VQ				
11+35	0.6190	2.58	Q				
11+40	0.6367	2.57	Q				
11+45	0.6543	2.55	Q				
11+50	0.6717	2.53	Q				
11+55	0.6890	2.51	QV				
12+ 0	0.7061	2.48	Q V				
12+ 5	0.7232	2.48	Q V				
12+10	0.7406	2.54	Q V				
12+15	0.7588	2.64	Q V				
12+20	0.7780	2.79	QV				
12+25	0.7985	2.98	QV				
12+30	0.8205	3.19	QV				
12+35	0.8440	3.41	Q				
12+40	0.8688	3.61	Q				
12+45	0.8948	3.77	VQ				
12+50	0.9219	3.93	VQ				
12+55	0.9500	4.08	VQ				
13+ 0	0.9790	4.21	VQ				
13+ 5	1.0090	4.36	VQ				
13+10	1.0401	4.52	V Q				
13+15	1.0725	4.69	VQ				
13+20	1.1060	4.88	V Q				
13+25	1.1410	5.07	V Q				
13+30	1.1773	5.27	V Q				
13+35	1.2146	5.42	V Q				
13+40	1.2524	5.49	VQ				
13+45	1.2900	5.46	VQ				
13+50	1.3269	5.36	Q				
13+55	1.3626	5.18	Q V				
14+ 0	1.3967	4.96	Q V				
14+ 5	1.4294	4.74	Q V				
14+10	1.4611	4.60	Q V				
14+15	1.4923	4.54	Q V				



19+35	2.4330	0.14	Q	|	|	|	V|
19+40	2.4339	0.13	Q	|	|	|	V|
19+45	2.4347	0.13	Q	|	|	|	V|
19+50	2.4356	0.12	Q	|	|	|	V|
19+55	2.4363	0.11	Q	|	|	|	V|
20+ 0	2.4371	0.11	Q	|	|	|	V|
20+ 5	2.4377	0.10	Q	|	|	|	V|
20+10	2.4384	0.09	Q	|	|	|	V|
20+15	2.4389	0.08	Q	|	|	|	V|
20+20	2.4395	0.08	Q	|	|	|	V|
20+25	2.4399	0.07	Q	|	|	|	V|
20+30	2.4404	0.07	Q	|	|	|	V|
20+35	2.4409	0.07	Q	|	|	|	V|
20+40	2.4414	0.07	Q	|	|	|	V|
20+45	2.4420	0.07	Q	|	|	|	V|
20+50	2.4425	0.07	Q	|	|	|	V|
20+55	2.4430	0.07	Q	|	|	|	V|
21+ 0	2.4435	0.07	Q	|	|	|	V|
21+ 5	2.4439	0.07	Q	|	|	|	V|
21+10	2.4444	0.07	Q	|	|	|	V|
21+15	2.4449	0.07	Q	|	|	|	V|
21+20	2.4453	0.07	Q	|	|	|	V|
21+25	2.4458	0.07	Q	|	|	|	V|
21+30	2.4463	0.07	Q	|	|	|	V|
21+35	2.4467	0.07	Q	|	|	|	V|
21+40	2.4472	0.07	Q	|	|	|	V|
21+45	2.4476	0.06	Q	|	|	|	V|
21+50	2.4480	0.06	Q	|	|	|	V|
21+55	2.4485	0.06	Q	|	|	|	V|
22+ 0	2.4489	0.06	Q	|	|	|	V|
22+ 5	2.4494	0.06	Q	|	|	|	V|
22+10	2.4498	0.06	Q	|	|	|	V|
22+15	2.4502	0.06	Q	|	|	|	V|
22+20	2.4507	0.06	Q	|	|	|	V|
22+25	2.4511	0.06	Q	|	|	|	V|
22+30	2.4515	0.06	Q	|	|	|	V|
22+35	2.4520	0.06	Q	|	|	|	V|
22+40	2.4524	0.06	Q	|	|	|	V|
22+45	2.4528	0.06	Q	|	|	|	V|
22+50	2.4532	0.06	Q	|	|	|	V|
22+55	2.4536	0.06	Q	|	|	|	V|
23+ 0	2.4540	0.06	Q	|	|	|	V|
23+ 5	2.4544	0.05	Q	|	|	|	V|
23+10	2.4547	0.05	Q	|	|	|	V|
23+15	2.4551	0.05	Q	|	|	|	V|
23+20	2.4555	0.05	Q	|	|	|	V|
23+25	2.4558	0.05	Q	|	|	|	V|
23+30	2.4562	0.05	Q	|	|	|	V|
23+35	2.4565	0.05	Q	|	|	|	V|
23+40	2.4569	0.05	Q	|	|	|	V|
23+45	2.4573	0.05	Q	|	|	|	V|
23+50	2.4576	0.05	Q	|	|	|	V|
23+55	2.4580	0.05	Q	|	|	|	V|
24+ 0	2.4583	0.05	Q	|	|	|	V|
24+ 5	2.4587	0.05	Q	|	|	|	V|
24+10	2.4590	0.05	Q	|	|	|	V|
24+15	2.4593	0.05	Q	|	|	|	V|
24+20	2.4596	0.04	Q	|	|	|	V|
24+25	2.4599	0.04	Q	|	|	|	V|
24+30	2.4601	0.03	Q	|	|	|	V|
24+35	2.4603	0.03	Q	|	|	|	V|
24+40	2.4604	0.02	Q	|	|	|	V|
24+45	2.4605	0.02	Q	|	|	|	V|

24+50	2.4607	0.02	Q	|	|	|	V|
24+55	2.4608	0.01	Q	|	|	|	V|
25+ 0	2.4609	0.01	Q	|	|	|	V|
25+ 5	2.4609	0.01	Q	|	|	|	V|
25+10	2.4610	0.01	Q	|	|	|	V|
25+15	2.4611	0.01	Q	|	|	|	V|
25+20	2.4611	0.01	Q	|	|	|	V|
25+25	2.4612	0.01	Q	|	|	|	V|
25+30	2.4613	0.01	Q	|	|	|	V|
25+35	2.4613	0.01	Q	|	|	|	V|
25+40	2.4614	0.01	Q	|	|	|	V|
25+45	2.4614	0.01	Q	|	|	|	V|
25+50	2.4614	0.01	Q	|	|	|	V|
25+55	2.4615	0.01	Q	|	|	|	V|
26+ 0	2.4615	0.00	Q	|	|	|	V|
26+ 5	2.4615	0.00	Q	|	|	|	V|
26+10	2.4616	0.00	Q	|	|	|	V|
26+15	2.4616	0.00	Q	|	|	|	V|
26+20	2.4616	0.00	Q	|	|	|	V|
26+25	2.4616	0.00	Q	|	|	|	V|
26+30	2.4617	0.00	Q	|	|	|	V|
26+35	2.4617	0.00	Q	|	|	|	V|
26+40	2.4617	0.00	Q	|	|	|	V|
26+45	2.4617	0.00	Q	|	|	|	V|
26+50	2.4617	0.00	Q	|	|	|	V|
26+55	2.4617	0.00	Q	|	|	|	V|
27+ 0	2.4617	0.00	Q	|	|	|	V|
27+ 5	2.4618	0.00	Q	|	|	|	V|
27+10	2.4618	0.00	Q	|	|	|	V|
27+15	2.4618	0.00	Q	|	|	|	V|
27+20	2.4618	0.00	Q	|	|	|	V|
27+25	2.4618	0.00	Q	|	|	|	V|
27+30	2.4618	0.00	Q	|	|	|	V|
27+35	2.4618	0.00	Q	|	|	|	V|
27+40	2.4618	0.00	Q	|	|	|	V|
27+45	2.4618	0.00	Q	|	|	|	V|
27+50	2.4618	0.00	Q	|	|	|	V|
27+55	2.4618	0.00	Q	|	|	|	V|
28+ 0	2.4618	0.00	Q	|	|	|	V|
28+ 5	2.4618	0.00	Q	|	|	|	V|
28+10	2.4618	0.00	Q	|	|	|	V|
28+15	2.4618	0.00	Q	|	|	|	V|
28+20	2.4618	0.00	Q	|	|	|	V

U n i t H y d r o g r a p h A n a l y s i s

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Study date 08/18/23 File: 5288Q100PUH1100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6145

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

CORE5 - ETHANAC BUSINESS PARK
100 YEAR STORM EVENT PROPOSED UNIT HYDROGRAPH
5288Q100PUH
DS

Drainage Area = 11.47(Ac.) = 0.018 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 11.47(Ac.) = 0.018 Sq. Mi.
USER Entry of lag time in hours
Lag time = 0.146 Hr.
Lag time = 8.74 Min.
25% of lag time = 2.18 Min.
40% of lag time = 3.49 Min.
Unit time = 5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
11.47	0.51	5.80

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
11.47	1.59	18.24

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 0.506(In)
Area Averaged 100-Year Rainfall = 1.590(In)

Point rain (area averaged) = 1.590(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 1.590(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
11.470	69.00	0.900

Total Area Entered = 11.47(Ac.)

RI AMC2	RI AMC-2	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	69.0	0.373	0.900	0.071	1.000	0.071
					Sum (F) =	0.071

Area averaged mean soil loss (F) (In/Hr) = 0.071
Minimum soil loss rate ((In/Hr)) = 0.035
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.180

Slope of intensity-duration curve for a 1 hour storm =0.5000

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	57.234	7.600	0.878
2	0.167	114.469	31.950	3.693
3	0.250	171.703	27.436	3.172
4	0.333	228.938	10.852	1.254
5	0.417	286.172	6.263	0.724
6	0.500	343.407	4.266	0.493
7	0.583	400.641	3.096	0.358
8	0.667	457.875	2.172	0.251
9	0.750	515.110	1.744	0.202
10	0.833	572.344	1.366	0.158
11	0.917	629.579	1.042	0.120
12	1.000	686.813	0.781	0.090
13	1.083	744.048	0.587	0.068
14	1.167	801.282	0.846	0.098
		Sum = 100.000	Sum=	11.560

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	4.20	0.801	0.071	---	0.73
2	0.17	4.30	0.820	0.071	---	0.75
3	0.25	5.00	0.954	0.071	---	0.88
4	0.33	5.00	0.954	0.071	---	0.88
5	0.42	5.80	1.107	0.071	---	1.04
6	0.50	6.50	1.240	0.071	---	1.17
7	0.58	7.40	1.412	0.071	---	1.34
8	0.67	8.60	1.641	0.071	---	1.57
9	0.75	12.30	2.347	0.071	---	2.28
10	0.83	29.10	5.552	0.071	---	5.48
11	0.92	6.80	1.297	0.071	---	1.23
12	1.00	5.00	0.954	0.071	---	0.88
Sum =		100.0			Sum =	18.2

Flood volume = Effective rainfall 1.52(In)
times area 11.5(Ac.)/[(In)/(Ft.)] = 1.5(Ac.Ft)
Total soil loss = 0.07(In)
Total soil loss = 0.068(Ac.Ft)
Total rainfall = 1.59(In)

Flood volume = 63245.3 Cubic Feet
Total soil loss = 2949.2 Cubic Feet

Peak flow rate of this hydrograph = 33.048(CFS)

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1 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0 10.0 20.0 30.0 40.0
0+ 5	0.0044	0.64	Q
0+10	0.0275	3.36	V Q
0+15	0.0679	5.86	V Q
0+20	0.1184	7.33	V Q
0+25	0.1766	8.45	V Q
0+30	0.2432	9.67	V Q
0+35	0.3201	11.16	V Q
0+40	0.4087	12.87	VQ
0+45	0.5145	15.36	VQ
0+50	0.6664	22.05	V Q
0+55	0.8940	33.05	V Q
1+ 0	1.0904	28.51	Q V
1+ 5	1.2130	17.80	Q V
1+10	1.2890	11.04	Q V
1+15	1.3352	6.70	Q V
1+20	1.3675	4.69	Q V
1+25	1.3908	3.38	Q V
1+30	1.4085	2.58	Q V
1+35	1.4220	1.96	Q V
1+40	1.4322	1.48	Q V
1+45	1.4397	1.09	Q V
1+50	1.4453	0.81	Q V
1+55	1.4501	0.70	Q V
2+ 0	1.4513	0.18	Q V
2+ 5	1.4519	0.09	Q V

U n i t H y d r o g r a p h A n a l y s i s

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USER Entry of lag time in hours
Lag time = 0.146 Hr.
Lag time = 8.74 Min.
25% of lag time = 2.18 Min.
40% of lag time = 3.49 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
11.47	2.05	23.51

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
11.47	5.33	61.14

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 2.050(In)
Area Averaged 100-Year Rainfall = 5.330(In)

Point rain (area averaged) = 5.330(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 5.330(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
11.470	69.00	0.900

Total Area Entered = 11.47(Ac.)

RI AMC2	RI AMC-2	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	69.0	0.373	0.900	0.071	1.000	0.071
					Sum (F) =	0.071

Area averaged mean soil loss (F) (In/Hr) = 0.071
Minimum soil loss rate ((In/Hr)) = 0.035
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.180

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	57.234	7.600	0.878
2	0.167	114.469	31.950	3.693
3	0.250	171.703	27.436	3.172
4	0.333	228.938	10.852	1.254
5	0.417	286.172	6.263	0.724
6	0.500	343.407	4.266	0.493
7	0.583	400.641	3.096	0.358
8	0.667	457.875	2.172	0.251
9	0.750	515.110	1.744	0.202
10	0.833	572.344	1.366	0.158
11	0.917	629.579	1.042	0.120
12	1.000	686.813	0.781	0.090
13	1.083	744.048	0.587	0.068
14	1.167	801.282	0.846	0.098
			Sum = 100.000 Sum=	11.560

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.043	0.126	0.008	0.03
2	0.17	0.07	0.043	0.125	0.008	0.03
3	0.25	0.07	0.043	0.125	0.008	0.03
4	0.33	0.10	0.064	0.124	0.012	0.05
5	0.42	0.10	0.064	0.124	0.012	0.05
6	0.50	0.10	0.064	0.123	0.012	0.05
7	0.58	0.10	0.064	0.123	0.012	0.05
8	0.67	0.10	0.064	0.122	0.012	0.05
9	0.75	0.10	0.064	0.122	0.012	0.05
10	0.83	0.13	0.085	0.121	0.015	0.07
11	0.92	0.13	0.085	0.121	0.015	0.07
12	1.00	0.13	0.085	0.120	0.015	0.07
13	1.08	0.10	0.064	0.120	0.012	0.05
14	1.17	0.10	0.064	0.119	0.012	0.05
15	1.25	0.10	0.064	0.119	0.012	0.05
16	1.33	0.10	0.064	0.118	0.012	0.05
17	1.42	0.10	0.064	0.118	0.012	0.05
18	1.50	0.10	0.064	0.117	0.012	0.05
19	1.58	0.10	0.064	0.117	0.012	0.05
20	1.67	0.10	0.064	0.117	0.012	0.05

21	1.75	0.10	0.064	0.116	0.012	0.05
22	1.83	0.13	0.085	0.116	0.015	0.07
23	1.92	0.13	0.085	0.115	0.015	0.07
24	2.00	0.13	0.085	0.115	0.015	0.07
25	2.08	0.13	0.085	0.114	0.015	0.07
26	2.17	0.13	0.085	0.114	0.015	0.07
27	2.25	0.13	0.085	0.113	0.015	0.07
28	2.33	0.13	0.085	0.113	0.015	0.07
29	2.42	0.13	0.085	0.112	0.015	0.07
30	2.50	0.13	0.085	0.112	0.015	0.07
31	2.58	0.17	0.107	0.111	0.019	0.09
32	2.67	0.17	0.107	0.111	0.019	0.09
33	2.75	0.17	0.107	0.110	0.019	0.09
34	2.83	0.17	0.107	0.110	0.019	0.09
35	2.92	0.17	0.107	0.110	0.019	0.09
36	3.00	0.17	0.107	0.109	0.019	0.09
37	3.08	0.17	0.107	0.109	0.019	0.09
38	3.17	0.17	0.107	0.108	0.019	0.09
39	3.25	0.17	0.107	0.108	0.019	0.09
40	3.33	0.17	0.107	0.107	0.019	0.09
41	3.42	0.17	0.107	0.107	0.019	0.09
42	3.50	0.17	0.107	0.106	---	0.00
43	3.58	0.17	0.107	0.106	---	0.00
44	3.67	0.17	0.107	0.106	---	0.00
45	3.75	0.17	0.107	0.105	---	0.00
46	3.83	0.20	0.128	0.105	---	0.02
47	3.92	0.20	0.128	0.104	---	0.02
48	4.00	0.20	0.128	0.104	---	0.02
49	4.08	0.20	0.128	0.103	---	0.02
50	4.17	0.20	0.128	0.103	---	0.03
51	4.25	0.20	0.128	0.102	---	0.03
52	4.33	0.23	0.149	0.102	---	0.05
53	4.42	0.23	0.149	0.102	---	0.05
54	4.50	0.23	0.149	0.101	---	0.05
55	4.58	0.23	0.149	0.101	---	0.05
56	4.67	0.23	0.149	0.100	---	0.05
57	4.75	0.23	0.149	0.100	---	0.05
58	4.83	0.27	0.171	0.099	---	0.07
59	4.92	0.27	0.171	0.099	---	0.07
60	5.00	0.27	0.171	0.099	---	0.07
61	5.08	0.20	0.128	0.098	---	0.03
62	5.17	0.20	0.128	0.098	---	0.03
63	5.25	0.20	0.128	0.097	---	0.03
64	5.33	0.23	0.149	0.097	---	0.05
65	5.42	0.23	0.149	0.096	---	0.05
66	5.50	0.23	0.149	0.096	---	0.05
67	5.58	0.27	0.171	0.096	---	0.07
68	5.67	0.27	0.171	0.095	---	0.08
69	5.75	0.27	0.171	0.095	---	0.08
70	5.83	0.27	0.171	0.094	---	0.08
71	5.92	0.27	0.171	0.094	---	0.08
72	6.00	0.27	0.171	0.093	---	0.08
73	6.08	0.30	0.192	0.093	---	0.10
74	6.17	0.30	0.192	0.093	---	0.10
75	6.25	0.30	0.192	0.092	---	0.10
76	6.33	0.30	0.192	0.092	---	0.10
77	6.42	0.30	0.192	0.091	---	0.10
78	6.50	0.30	0.192	0.091	---	0.10
79	6.58	0.33	0.213	0.091	---	0.12
80	6.67	0.33	0.213	0.090	---	0.12
81	6.75	0.33	0.213	0.090	---	0.12
82	6.83	0.33	0.213	0.089	---	0.12
83	6.92	0.33	0.213	0.089	---	0.12

84	7.00	0.33	0.213	0.089	---	0.12
85	7.08	0.33	0.213	0.088	---	0.13
86	7.17	0.33	0.213	0.088	---	0.13
87	7.25	0.33	0.213	0.087	---	0.13
88	7.33	0.37	0.235	0.087	---	0.15
89	7.42	0.37	0.235	0.087	---	0.15
90	7.50	0.37	0.235	0.086	---	0.15
91	7.58	0.40	0.256	0.086	---	0.17
92	7.67	0.40	0.256	0.085	---	0.17
93	7.75	0.40	0.256	0.085	---	0.17
94	7.83	0.43	0.277	0.085	---	0.19
95	7.92	0.43	0.277	0.084	---	0.19
96	8.00	0.43	0.277	0.084	---	0.19
97	8.08	0.50	0.320	0.083	---	0.24
98	8.17	0.50	0.320	0.083	---	0.24
99	8.25	0.50	0.320	0.083	---	0.24
100	8.33	0.50	0.320	0.082	---	0.24
101	8.42	0.50	0.320	0.082	---	0.24
102	8.50	0.50	0.320	0.082	---	0.24
103	8.58	0.53	0.341	0.081	---	0.26
104	8.67	0.53	0.341	0.081	---	0.26
105	8.75	0.53	0.341	0.080	---	0.26
106	8.83	0.57	0.362	0.080	---	0.28
107	8.92	0.57	0.362	0.080	---	0.28
108	9.00	0.57	0.362	0.079	---	0.28
109	9.08	0.63	0.405	0.079	---	0.33
110	9.17	0.63	0.405	0.078	---	0.33
111	9.25	0.63	0.405	0.078	---	0.33
112	9.33	0.67	0.426	0.078	---	0.35
113	9.42	0.67	0.426	0.077	---	0.35
114	9.50	0.67	0.426	0.077	---	0.35
115	9.58	0.70	0.448	0.077	---	0.37
116	9.67	0.70	0.448	0.076	---	0.37
117	9.75	0.70	0.448	0.076	---	0.37
118	9.83	0.73	0.469	0.076	---	0.39
119	9.92	0.73	0.469	0.075	---	0.39
120	10.00	0.73	0.469	0.075	---	0.39
121	10.08	0.50	0.320	0.074	---	0.25
122	10.17	0.50	0.320	0.074	---	0.25
123	10.25	0.50	0.320	0.074	---	0.25
124	10.33	0.50	0.320	0.073	---	0.25
125	10.42	0.50	0.320	0.073	---	0.25
126	10.50	0.50	0.320	0.073	---	0.25
127	10.58	0.67	0.426	0.072	---	0.35
128	10.67	0.67	0.426	0.072	---	0.35
129	10.75	0.67	0.426	0.072	---	0.35
130	10.83	0.67	0.426	0.071	---	0.36
131	10.92	0.67	0.426	0.071	---	0.36
132	11.00	0.67	0.426	0.071	---	0.36
133	11.08	0.63	0.405	0.070	---	0.33
134	11.17	0.63	0.405	0.070	---	0.34
135	11.25	0.63	0.405	0.069	---	0.34
136	11.33	0.63	0.405	0.069	---	0.34
137	11.42	0.63	0.405	0.069	---	0.34
138	11.50	0.63	0.405	0.068	---	0.34
139	11.58	0.57	0.362	0.068	---	0.29
140	11.67	0.57	0.362	0.068	---	0.29
141	11.75	0.57	0.362	0.067	---	0.29
142	11.83	0.60	0.384	0.067	---	0.32
143	11.92	0.60	0.384	0.067	---	0.32
144	12.00	0.60	0.384	0.066	---	0.32
145	12.08	0.83	0.533	0.066	---	0.47
146	12.17	0.83	0.533	0.066	---	0.47

147	12.25	0.83	0.533	0.065	---	0.47
148	12.33	0.87	0.554	0.065	---	0.49
149	12.42	0.87	0.554	0.065	---	0.49
150	12.50	0.87	0.554	0.064	---	0.49
151	12.58	0.93	0.597	0.064	---	0.53
152	12.67	0.93	0.597	0.064	---	0.53
153	12.75	0.93	0.597	0.064	---	0.53
154	12.83	0.97	0.618	0.063	---	0.56
155	12.92	0.97	0.618	0.063	---	0.56
156	13.00	0.97	0.618	0.063	---	0.56
157	13.08	1.13	0.725	0.062	---	0.66
158	13.17	1.13	0.725	0.062	---	0.66
159	13.25	1.13	0.725	0.062	---	0.66
160	13.33	1.13	0.725	0.061	---	0.66
161	13.42	1.13	0.725	0.061	---	0.66
162	13.50	1.13	0.725	0.061	---	0.66
163	13.58	0.77	0.490	0.060	---	0.43
164	13.67	0.77	0.490	0.060	---	0.43
165	13.75	0.77	0.490	0.060	---	0.43
166	13.83	0.77	0.490	0.059	---	0.43
167	13.92	0.77	0.490	0.059	---	0.43
168	14.00	0.77	0.490	0.059	---	0.43
169	14.08	0.90	0.576	0.059	---	0.52
170	14.17	0.90	0.576	0.058	---	0.52
171	14.25	0.90	0.576	0.058	---	0.52
172	14.33	0.87	0.554	0.058	---	0.50
173	14.42	0.87	0.554	0.057	---	0.50
174	14.50	0.87	0.554	0.057	---	0.50
175	14.58	0.87	0.554	0.057	---	0.50
176	14.67	0.87	0.554	0.056	---	0.50
177	14.75	0.87	0.554	0.056	---	0.50
178	14.83	0.83	0.533	0.056	---	0.48
179	14.92	0.83	0.533	0.056	---	0.48
180	15.00	0.83	0.533	0.055	---	0.48
181	15.08	0.80	0.512	0.055	---	0.46
182	15.17	0.80	0.512	0.055	---	0.46
183	15.25	0.80	0.512	0.054	---	0.46
184	15.33	0.77	0.490	0.054	---	0.44
185	15.42	0.77	0.490	0.054	---	0.44
186	15.50	0.77	0.490	0.054	---	0.44
187	15.58	0.63	0.405	0.053	---	0.35
188	15.67	0.63	0.405	0.053	---	0.35
189	15.75	0.63	0.405	0.053	---	0.35
190	15.83	0.63	0.405	0.053	---	0.35
191	15.92	0.63	0.405	0.052	---	0.35
192	16.00	0.63	0.405	0.052	---	0.35
193	16.08	0.13	0.085	0.052	---	0.03
194	16.17	0.13	0.085	0.051	---	0.03
195	16.25	0.13	0.085	0.051	---	0.03
196	16.33	0.13	0.085	0.051	---	0.03
197	16.42	0.13	0.085	0.051	---	0.03
198	16.50	0.13	0.085	0.050	---	0.03
199	16.58	0.10	0.064	0.050	---	0.01
200	16.67	0.10	0.064	0.050	---	0.01
201	16.75	0.10	0.064	0.050	---	0.01
202	16.83	0.10	0.064	0.049	---	0.01
203	16.92	0.10	0.064	0.049	---	0.01
204	17.00	0.10	0.064	0.049	---	0.02
205	17.08	0.17	0.107	0.049	---	0.06
206	17.17	0.17	0.107	0.048	---	0.06
207	17.25	0.17	0.107	0.048	---	0.06
208	17.33	0.17	0.107	0.048	---	0.06
209	17.42	0.17	0.107	0.048	---	0.06

210	17.50	0.17	0.107	0.047	---	0.06
211	17.58	0.17	0.107	0.047	---	0.06
212	17.67	0.17	0.107	0.047	---	0.06
213	17.75	0.17	0.107	0.047	---	0.06
214	17.83	0.13	0.085	0.047	---	0.04
215	17.92	0.13	0.085	0.046	---	0.04
216	18.00	0.13	0.085	0.046	---	0.04
217	18.08	0.13	0.085	0.046	---	0.04
218	18.17	0.13	0.085	0.046	---	0.04
219	18.25	0.13	0.085	0.045	---	0.04
220	18.33	0.13	0.085	0.045	---	0.04
221	18.42	0.13	0.085	0.045	---	0.04
222	18.50	0.13	0.085	0.045	---	0.04
223	18.58	0.10	0.064	0.045	---	0.02
224	18.67	0.10	0.064	0.044	---	0.02
225	18.75	0.10	0.064	0.044	---	0.02
226	18.83	0.07	0.043	0.044	0.008	0.03
227	18.92	0.07	0.043	0.044	0.008	0.03
228	19.00	0.07	0.043	0.043	0.008	0.03
229	19.08	0.10	0.064	0.043	---	0.02
230	19.17	0.10	0.064	0.043	---	0.02
231	19.25	0.10	0.064	0.043	---	0.02
232	19.33	0.13	0.085	0.043	---	0.04
233	19.42	0.13	0.085	0.042	---	0.04
234	19.50	0.13	0.085	0.042	---	0.04
235	19.58	0.10	0.064	0.042	---	0.02
236	19.67	0.10	0.064	0.042	---	0.02
237	19.75	0.10	0.064	0.042	---	0.02
238	19.83	0.07	0.043	0.041	---	0.00
239	19.92	0.07	0.043	0.041	---	0.00
240	20.00	0.07	0.043	0.041	---	0.00
241	20.08	0.10	0.064	0.041	---	0.02
242	20.17	0.10	0.064	0.041	---	0.02
243	20.25	0.10	0.064	0.041	---	0.02
244	20.33	0.10	0.064	0.040	---	0.02
245	20.42	0.10	0.064	0.040	---	0.02
246	20.50	0.10	0.064	0.040	---	0.02
247	20.58	0.10	0.064	0.040	---	0.02
248	20.67	0.10	0.064	0.040	---	0.02
249	20.75	0.10	0.064	0.040	---	0.02
250	20.83	0.07	0.043	0.039	---	0.00
251	20.92	0.07	0.043	0.039	---	0.00
252	21.00	0.07	0.043	0.039	---	0.00
253	21.08	0.10	0.064	0.039	---	0.03
254	21.17	0.10	0.064	0.039	---	0.03
255	21.25	0.10	0.064	0.039	---	0.03
256	21.33	0.07	0.043	0.038	---	0.00
257	21.42	0.07	0.043	0.038	---	0.00
258	21.50	0.07	0.043	0.038	---	0.00
259	21.58	0.10	0.064	0.038	---	0.03
260	21.67	0.10	0.064	0.038	---	0.03
261	21.75	0.10	0.064	0.038	---	0.03
262	21.83	0.07	0.043	0.038	---	0.00
263	21.92	0.07	0.043	0.038	---	0.01
264	22.00	0.07	0.043	0.037	---	0.01
265	22.08	0.10	0.064	0.037	---	0.03
266	22.17	0.10	0.064	0.037	---	0.03
267	22.25	0.10	0.064	0.037	---	0.03
268	22.33	0.07	0.043	0.037	---	0.01
269	22.42	0.07	0.043	0.037	---	0.01
270	22.50	0.07	0.043	0.037	---	0.01
271	22.58	0.07	0.043	0.037	---	0.01
272	22.67	0.07	0.043	0.036	---	0.01

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273  22.75     0.07      0.043         0.036      ---          0.01
274  22.83     0.07      0.043         0.036      ---          0.01
275  22.92     0.07      0.043         0.036      ---          0.01
276  23.00     0.07      0.043         0.036      ---          0.01
277  23.08     0.07      0.043         0.036      ---          0.01
278  23.17     0.07      0.043         0.036      ---          0.01
279  23.25     0.07      0.043         0.036      ---          0.01
280  23.33     0.07      0.043         0.036      ---          0.01
281  23.42     0.07      0.043         0.036      ---          0.01
282  23.50     0.07      0.043         0.036      ---          0.01
283  23.58     0.07      0.043         0.036      ---          0.01
284  23.67     0.07      0.043         0.036      ---          0.01
285  23.75     0.07      0.043         0.036      ---          0.01
286  23.83     0.07      0.043         0.035      ---          0.01
287  23.92     0.07      0.043         0.035      ---          0.01
288  24.00     0.07      0.043         0.035      ---          0.01
    Sum =     100.0                                 Sum =     47.8
     Flood volume = Effective rainfall      3.99(In)
      times area      11.5(Ac.)/[(In)/(Ft.)] =       3.8(Ac.Ft)
     Total soil loss =      1.34(In)
     Total soil loss =     1.285(Ac.Ft)
     Total rainfall =      5.33(In)
     Flood volume =      165943.6 Cubic Feet
     Total soil loss =       55971.8 Cubic Feet
     ---------------------------------------------------------------------
      Peak flow rate of this hydrograph =      7.510(CFS)
     ---------------------------------------------------------------------
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                    R u n o f f      H y d r o g r a p h
     ---------------------------------------------------------------------
                 Hydrograph in   5   Minute intervals ((CFS))

     ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
 ---------------------------------------------------------------------------
   0+ 5       0.0002      0.03  Q          |         |         |         |
   0+10       0.0013      0.16  Q          |         |         |         |
   0+15       0.0032      0.27  VQ         |         |         |         |
   0+20       0.0055      0.33  VQ         |         |         |         |
   0+25       0.0083      0.42  VQ         |         |         |         |
   0+30       0.0117      0.49  VQ         |         |         |         |
   0+35       0.0154      0.53  V Q        |         |         |         |
   0+40       0.0191      0.55  V Q        |         |         |         |
   0+45       0.0230      0.56  V Q        |         |         |         |
   0+50       0.0271      0.59  V Q        |         |         |         |
   0+55       0.0317      0.66  V Q        |         |         |         |
   1+ 0       0.0367      0.73  V Q        |         |         |         |
   1+ 5       0.0418      0.74  V Q        |         |         |         |
   1+10       0.0465      0.69  V Q        |         |         |         |
   1+15       0.0510      0.65  V Q        |         |         |         |
   1+20       0.0554      0.63  V Q        |         |         |         |
   1+25       0.0597      0.63  V Q        |         |         |         |
   1+30       0.0639      0.62  V Q        |         |         |         |
   1+35       0.0682      0.62  V Q        |         |         |         |
   1+40       0.0724      0.61  V Q        |         |         |         |
   1+45       0.0767      0.61  V Q        |         |         |         |
   1+50       0.0810      0.63  V Q        |         |         |         |
   1+55       0.0857      0.69  V Q        |         |         |         |
   2+ 0       0.0909      0.74  V Q        |         |         |         |
   2+ 5       0.0961      0.77  |V Q       |         |         |         |
   2+10       0.1015      0.78  |V Q       |         |         |         |
   2+15       0.1069      0.79  |V Q       |         |         |         |
```
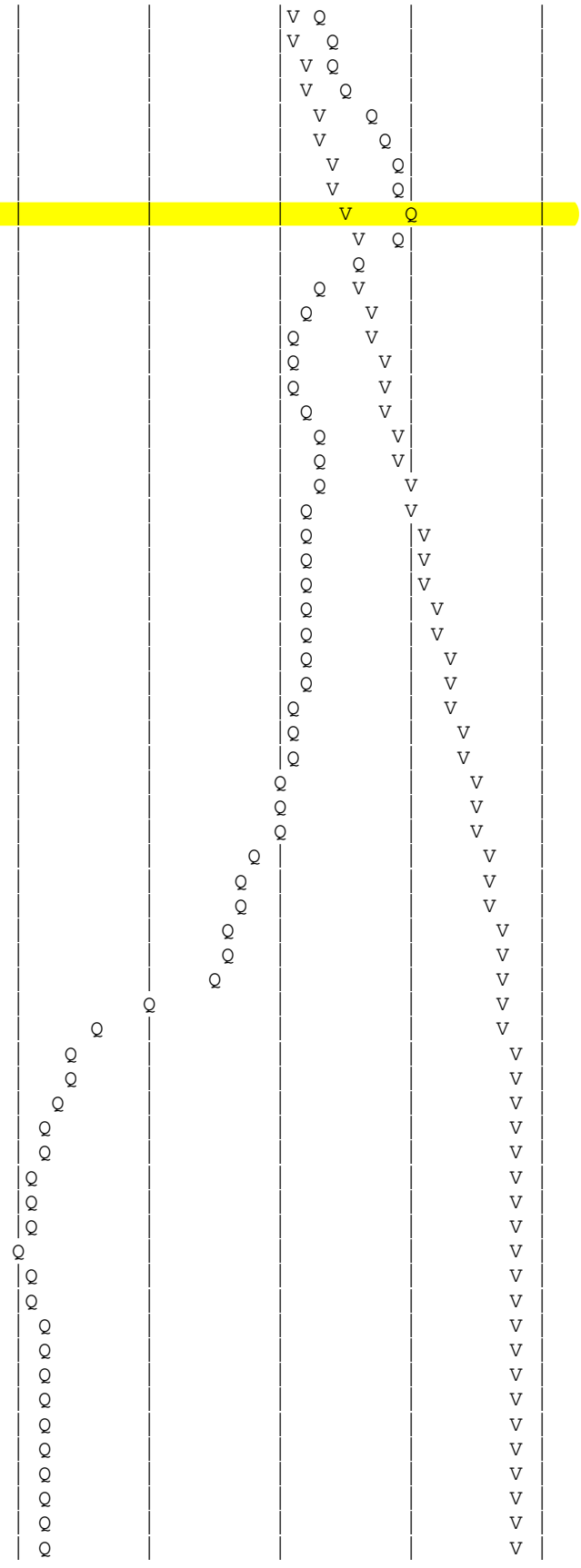

2+20	0.1123	0.79	V Q			
2+25	0.1178	0.80	V Q			
2+30	0.1233	0.80	V Q			
2+35	0.1290	0.82	V Q			
2+40	0.1350	0.88	V Q			
2+45	0.1415	0.94	V Q			
2+50	0.1482	0.96	V Q			
2+55	0.1549	0.98	V Q			
3+ 0	0.1617	0.99	V Q			
3+ 5	0.1686	0.99	V Q			
3+10	0.1754	1.00	V Q			
3+15	0.1823	1.00	V Q			
3+20	0.1892	1.00	V Q			
3+25	0.1962	1.01	V Q			
3+30	0.2026	0.93	VQ			
3+35	0.2068	0.61	Q			
3+40	0.2091	0.34	QV			
3+45	0.2107	0.23	Q V			
3+50	0.2120	0.19	Q V			
3+55	0.2136	0.23	Q V			
4+ 0	0.2155	0.27	QV			
4+ 5	0.2174	0.28	QV			
4+10	0.2194	0.28	QV			
4+15	0.2214	0.29	QV			
4+20	0.2235	0.31	QV			
4+25	0.2261	0.39	QV			
4+30	0.2293	0.46	QV			
4+35	0.2326	0.49	QV			
4+40	0.2361	0.51	Q			
4+45	0.2398	0.53	Q			
4+50	0.2436	0.56	Q			
4+55	0.2481	0.65	Q			
5+ 0	0.2531	0.73	Q			
5+ 5	0.2581	0.72	Q			
5+10	0.2621	0.59	Q			
5+15	0.2654	0.47	QV			
5+20	0.2685	0.45	QV			
5+25	0.2720	0.51	Q			
5+30	0.2759	0.57	Q			
5+35	0.2801	0.61	Q			
5+40	0.2849	0.70	Q			
5+45	0.2902	0.77	Q			
5+50	0.2958	0.81	Q			
5+55	0.3015	0.83	Q			
6+ 0	0.3073	0.85	Q			
6+ 5	0.3133	0.88	Q			
6+10	0.3200	0.96	Q			
6+15	0.3272	1.04	VQ			
6+20	0.3346	1.08	VQ			
6+25	0.3422	1.10	VQ			
6+30	0.3499	1.12	VQ			
6+35	0.3579	1.15	VQ			
6+40	0.3665	1.25	VQ			
6+45	0.3756	1.32	V Q			
6+50	0.3849	1.36	VQ			
6+55	0.3944	1.38	VQ			
7+ 0	0.4040	1.40	VQ			
7+ 5	0.4138	1.41	VQ			
7+10	0.4235	1.42	VQ			
7+15	0.4334	1.43	VQ			
7+20	0.4435	1.46	VQ			
7+25	0.4541	1.54	V Q			
7+30	0.4652	1.62	V Q			

7+35	0.4767	1.67	VQ			
7+40	0.4889	1.77	V Q			
7+45	0.5017	1.85	V Q			
7+50	0.5149	1.91	V Q			
7+55	0.5287	2.02	V Q			
8+ 0	0.5432	2.10	V Q			
8+ 5	0.5583	2.18	V Q			
8+10	0.5746	2.37	V Q			
8+15	0.5919	2.52	V Q			
8+20	0.6098	2.59	V Q			
8+25	0.6280	2.64	V Q			
8+30	0.6464	2.67	V Q			
8+35	0.6651	2.72	V Q			
8+40	0.6845	2.81	V Q			
8+45	0.7044	2.90	V Q			
8+50	0.7248	2.95	V Q			
8+55	0.7458	3.06	V Q			
9+ 0	0.7675	3.15	V Q			
9+ 5	0.7897	3.23	V Q			
9+10	0.8132	3.41	V Q			
9+15	0.8378	3.57	V Q			
9+20	0.8630	3.65	V Q			
9+25	0.8890	3.78	V Q			
9+30	0.9157	3.88	V Q			
9+35	0.9429	3.95	V Q			
9+40	0.9708	4.06	V Q			
9+45	0.9994	4.15	V Q			
9+50	1.0285	4.22	V Q			
9+55	1.0583	4.33	V Q			
10+ 0	1.0887	4.42	V Q			
10+ 5	1.1186	4.33	V Q			
10+10	1.1448	3.81	V Q			
10+15	1.1680	3.36	VQ			
10+20	1.1900	3.19	Q			
10+25	1.2113	3.10	Q			
10+30	1.2322	3.03	Q			
10+35	1.2534	3.08	QV			
10+40	1.2771	3.45	Q			
10+45	1.3031	3.76	V Q			
10+50	1.3298	3.88	V Q			
10+55	1.3569	3.94	VQ			
11+ 0	1.3844	3.99	VQ			
11+ 5	1.4119	4.00	VQ			
11+10	1.4390	3.94	Q			
11+15	1.4659	3.89	Q			
11+20	1.4926	3.89	Q			
11+25	1.5194	3.89	Q			
11+30	1.5463	3.89	QV			
11+35	1.5728	3.86	QV			
11+40	1.5984	3.71	Q V			
11+45	1.6230	3.58	Q V			
11+50	1.6474	3.54	Q V			
11+55	1.6721	3.59	Q V			
12+ 0	1.6972	3.64	Q V			
12+ 5	1.7233	3.78	Q V			
12+10	1.7532	4.34	QV			
12+15	1.7864	4.82	VQ			
12+20	1.8210	5.03	VQ			
12+25	1.8570	5.22	VQ			
12+30	1.8940	5.37	V Q			
12+35	1.9318	5.49	VQ			
12+40	1.9711	5.70	V Q			
12+45	2.0116	5.88	V Q			

12+50	2.0529	5.99	
12+55	2.0951	6.13	
13+ 0	2.1381	6.24	
13+ 5	2.1821	6.40	
13+10	2.2292	6.84	
13+15	2.2788	7.20	
13+20	2.3294	7.35	
13+25	2.3807	7.45	
13+30	2.4325	7.51	
13+35	2.4831	7.35	
13+40	2.5280	6.52	
13+45	2.5680	5.81	
13+50	2.6061	5.53	
13+55	2.6432	5.38	
14+ 0	2.6795	5.28	
14+ 5	2.7159	5.28	
14+10	2.7541	5.55	
14+15	2.7939	5.78	
14+20	2.8341	5.83	
14+25	2.8740	5.79	
14+30	2.9136	5.75	
14+35	2.9531	5.74	
14+40	2.9925	5.73	
14+45	3.0320	5.74	
14+50	3.0714	5.73	
14+55	3.1104	5.66	
15+ 0	3.1489	5.59	
15+ 5	3.1872	5.55	
15+10	3.2248	5.47	
15+15	3.2620	5.39	
15+20	3.2988	5.34	
15+25	3.3349	5.24	
15+30	3.3704	5.16	
15+35	3.4053	5.05	
15+40	3.4378	4.72	
15+45	3.4683	4.43	
15+50	3.4980	4.32	
15+55	3.5273	4.25	
16+ 0	3.5563	4.20	
16+ 5	3.5831	3.89	
16+10	3.6016	2.69	
16+15	3.6130	1.66	
16+20	3.6215	1.24	
16+25	3.6284	1.00	
16+30	3.6342	0.84	
16+35	3.6391	0.70	
16+40	3.6428	0.54	
16+45	3.6456	0.41	
16+50	3.6479	0.34	
16+55	3.6499	0.28	
17+ 0	3.6516	0.25	
17+ 5	3.6533	0.26	
17+10	3.6560	0.38	
17+15	3.6595	0.52	
17+20	3.6635	0.57	
17+25	3.6676	0.60	
17+30	3.6719	0.62	
17+35	3.6763	0.64	
17+40	3.6808	0.65	
17+45	3.6853	0.66	
17+50	3.6898	0.65	
17+55	3.6938	0.58	
18+ 0	3.6974	0.52	

18+ 5	3.7009	0.50	Q			V
18+10	3.7042	0.49	Q			V
18+15	3.7076	0.48	Q			V
18+20	3.7109	0.48	Q			V
18+25	3.7141	0.48	Q			V
18+30	3.7174	0.47	Q			V
18+35	3.7205	0.45	Q			V
18+40	3.7231	0.38	Q			V
18+45	3.7252	0.31	Q			V
18+50	3.7273	0.30	Q			V
18+55	3.7296	0.34	Q			V
19+ 0	3.7321	0.37	Q			V
19+ 5	3.7347	0.37	Q			V
19+10	3.7370	0.33	Q			V
19+15	3.7389	0.29	Q			V
19+20	3.7409	0.29	Q			V
19+25	3.7434	0.36	Q			V
19+30	3.7463	0.43	Q			V
19+35	3.7493	0.43	Q			V
19+40	3.7518	0.37	Q			V
19+45	3.7540	0.31	Q			V
19+50	3.7558	0.27	Q			V
19+55	3.7571	0.19	Q			V
20+ 0	3.7579	0.11	Q			V
20+ 5	3.7586	0.10	Q			V
20+10	3.7597	0.16	Q			V
20+15	3.7612	0.22	Q			V
20+20	3.7629	0.24	Q			V
20+25	3.7646	0.25	Q			V
20+30	3.7664	0.26	Q			V
20+35	3.7682	0.26	Q			V
20+40	3.7700	0.26	Q			V
20+45	3.7719	0.27	Q			V
20+50	3.7736	0.25	Q			V
20+55	3.7748	0.18	Q			V
21+ 0	3.7756	0.11	Q			V
21+ 5	3.7764	0.11	Q			V
21+10	3.7776	0.18	Q			V
21+15	3.7792	0.24	Q			V
21+20	3.7809	0.24	Q			V
21+25	3.7820	0.17	Q			V
21+30	3.7828	0.11	Q			V
21+35	3.7835	0.11	Q			V
21+40	3.7848	0.18	Q			V
21+45	3.7864	0.24	Q			V
21+50	3.7881	0.24	Q			V
21+55	3.7893	0.18	Q			V
22+ 0	3.7901	0.12	Q			V
22+ 5	3.7909	0.12	Q			V
22+10	3.7922	0.19	Q			V
22+15	3.7939	0.25	Q			V
22+20	3.7956	0.25	Q			V
22+25	3.7969	0.18	Q			V
22+30	3.7977	0.13	Q			V
22+35	3.7985	0.11	Q			V
22+40	3.7991	0.10	Q			V
22+45	3.7997	0.09	Q			V
22+50	3.8003	0.09	Q			V
22+55	3.8009	0.08	Q			V
23+ 0	3.8014	0.08	Q			V
23+ 5	3.8020	0.08	Q			V
23+10	3.8025	0.08	Q			V
23+15	3.8031	0.08	Q			V

23+20	3.8036	0.08	Q	|	|	|	V|
23+25	3.8042	0.08	Q	|	|	|	V|
23+30	3.8047	0.08	Q	|	|	|	V|
23+35	3.8052	0.08	Q	|	|	|	V|
23+40	3.8058	0.08	Q	|	|	|	V|
23+45	3.8064	0.08	Q	|	|	|	V|
23+50	3.8069	0.08	Q	|	|	|	V|
23+55	3.8075	0.08	Q	|	|	|	V|
24+ 0	3.8080	0.08	Q	|	|	|	V|
24+ 5	3.8086	0.08	Q	|	|	|	V|
24+10	3.8089	0.05	Q	|	|	|	V|
24+15	3.8091	0.03	Q	|	|	|	V|
24+20	3.8092	0.02	Q	|	|	|	V|
24+25	3.8093	0.01	Q	|	|	|	V|
24+30	3.8094	0.01	Q	|	|	|	V|
24+35	3.8094	0.01	Q	|	|	|	V|
24+40	3.8095	0.01	Q	|	|	|	V|
24+45	3.8095	0.00	Q	|	|	|	V|
24+50	3.8095	0.00	Q	|	|	|	V|
24+55	3.8095	0.00	Q	|	|	|	V|
25+ 0	3.8095	0.00	Q	|	|	|	V|
25+ 5	3.8095	0.00	Q	|	|	|	V|

Appendix D
100-year Basin Routing

CORE5 - ETHANAC BUSINESS PARK

Detention System Routing Study Summary

Stage Storage Number	Storage Depth (ft)	Elevation (ft)	Area (ft^2)	Incremental volume (ft^3)	Total Volume (ft^3)	Total Volume (acre-ft)	Outflow Q (CFS)	Notes
1	0.00	1418.75	0	0	0	0.000	0.00	**BOTTOM OF BASIN**
2	0.75	1419.50	8,736	2,529	2,529	0.058	0.30	
3	1.75	1420.50	30,866	7,117	9,646	0.221	0.30	
4	2.75	1421.50	30,866	6,849	16,495	0.379	0.30	
5	3.75	1422.50	30,866	6,403	22,898	0.526	0.30	
6	4.65	1423.40	30,866	5,251	28,149	0.646	0.30	**TOP OF WEIR**
7	5.75	1424.50	30,866	4,669	32,818	0.753	19.51	
8	6.75	1425.50	30,866	3,372	36,190	0.831	50.97	**TOP OF BASIN**

*WQMP Design Capture Volume (DCV) is 20,995 CF

Basin Routing Summary Table

	2 YR 24 HR	100 YR 1 HR	100 YR 24 HR
Existing Q (CFS) 11.47 ac	0.28	15.34	4.75
Proposed Q(CFS) 11.47 ac	2.05	33.05	7.51
Q (CFS) after Routing	0.30	30.35	7.45
WSE	1423.21	1424.84	1423.81

FLOOD HYDROGRAPH ROUTING PROGRAM
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Study date: 08/24/23

CORE5 - ETHANAC BUSINESS PARK
100 YEAR 24 HOUR STORM EVENT BASIN ROUTING
5288Q100BR24
DS

Program License Serial Number 6145

********** HYDROGRAPH INFORMATION **********

From study/file name: 5288Q100PUH24100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 301
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 7.510 (CFS)
Total volume = 3.810 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

++
Process from Point/Station 0.000 to Point/Station 0.000
**** RETARDING BASIN ROUTING ****
_____

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 301
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.750	0.058	0.300	0.057	0.059
1.750	0.221	0.300	0.220	0.222
2.750	0.379	0.300	0.378	0.380
3.750	0.526	0.300	0.525	0.527
4.650	0.646	0.300	0.645	0.647
5.750	0.753	19.510	0.686	0.820

6.750 0.831 50.970 0.655 1.007

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 1.9 3.76 5.63 7.51	Depth (Ft.)
0.083	0.03	0.00	0.000	O	0.00
0.167	0.16	0.00	0.001	O	0.01
0.250	0.27	0.01	0.002	OI	0.03
0.333	0.33	0.02	0.004	OI	0.05
0.417	0.42	0.03	0.007	OI	0.08
0.500	0.49	0.05	0.009	O I	0.12
0.583	0.53	0.06	0.013	O I	0.16
0.667	0.55	0.08	0.016	O I	0.20
0.750	0.56	0.10	0.019	O I	0.24
0.833	0.59	0.11	0.022	O I	0.29
0.917	0.66	0.13	0.026	O I	0.33
1.000	0.73	0.15	0.029	O I	0.38
1.083	0.74	0.17	0.033	O I	0.43
1.167	0.69	0.19	0.037	O I	0.48
1.250	0.65	0.21	0.040	O I	0.52
1.333	0.63	0.22	0.043	O I	0.56
1.417	0.63	0.24	0.046	|OI	0.59
1.500	0.62	0.25	0.049	|OI	0.63
1.583	0.62	0.26	0.051	|OI	0.66
1.667	0.61	0.28	0.053	|OI	0.69
1.750	0.61	0.29	0.056	|OI	0.72
1.833	0.63	0.30	0.058	|OI	0.75
1.917	0.69	0.30	0.060	|OI	0.76
2.000	0.74	0.30	0.063	|O I	0.78
2.083	0.77	0.30	0.066	|O I	0.80
2.167	0.78	0.30	0.070	|O I	0.82
2.250	0.79	0.30	0.073	|O I	0.84
2.333	0.79	0.30	0.076	|O I	0.86
2.417	0.80	0.30	0.080	|O I	0.88
2.500	0.80	0.30	0.083	|O I	0.90
2.583	0.82	0.30	0.087	|O I	0.93
2.667	0.88	0.30	0.090	|O I	0.95
2.750	0.94	0.30	0.095	|O I	0.98
2.833	0.96	0.30	0.099	|O I	1.00
2.917	0.98	0.30	0.104	|O I	1.03
3.000	0.99	0.30	0.109	|O I	1.06
3.083	0.99	0.30	0.113	|O I	1.09
3.167	1.00	0.30	0.118	|O I	1.12
3.250	1.00	0.30	0.123	|O I	1.15
3.333	1.00	0.30	0.128	|O I	1.18
3.417	1.01	0.30	0.133	|O I	1.21
3.500	0.93	0.30	0.137	|O I	1.24
3.583	0.61	0.30	0.140	|OI	1.26
3.667	0.34	0.30	0.142	|O	1.26
3.750	0.23	0.30	0.142	IO	1.26
3.833	0.19	0.30	0.141	IO	1.26
3.917	0.23	0.30	0.140	IO	1.26
4.000	0.27	0.30	0.140	|O	1.25
4.083	0.28	0.30	0.140	|O	1.25
4.167	0.28	0.30	0.140	|O	1.25
4.250	0.29	0.30	0.140	|O	1.25
4.333	0.31	0.30	0.140	|O	1.25
4.417	0.39	0.30	0.140	|O	1.25
4.500	0.46	0.30	0.141	|O	1.26

4.583	0.49	0.30	0.142	OI				1.26
4.667	0.51	0.30	0.143	OI				1.27
4.750	0.53	0.30	0.145	OI				1.28
4.833	0.56	0.30	0.146	OI				1.29
4.917	0.65	0.30	0.149	OI				1.31
5.000	0.73	0.30	0.151	O I				1.32
5.083	0.72	0.30	0.154	O I				1.34
5.167	0.59	0.30	0.157	OI				1.35
5.250	0.47	0.30	0.158	OI				1.36
5.333	0.45	0.30	0.159	O				1.37
5.417	0.51	0.30	0.161	OI				1.38
5.500	0.57	0.30	0.162	OI				1.39
5.583	0.61	0.30	0.164	OI				1.40
5.667	0.70	0.30	0.167	OI				1.42
5.750	0.77	0.30	0.170	O I				1.43
5.833	0.81	0.30	0.173	O I				1.46
5.917	0.83	0.30	0.177	O I				1.48
6.000	0.85	0.30	0.180	O I				1.50
6.083	0.88	0.30	0.184	O I				1.52
6.167	0.96	0.30	0.188	O I				1.55
6.250	1.04	0.30	0.193	O I				1.58
6.333	1.08	0.30	0.198	O I				1.61
6.417	1.10	0.30	0.204	O I				1.65
6.500	1.12	0.30	0.210	O I				1.68
6.583	1.15	0.30	0.215	O I				1.72
6.667	1.25	0.30	0.222	O I				1.75
6.750	1.32	0.30	0.228	O I				1.80
6.833	1.36	0.30	0.235	O I				1.84
6.917	1.38	0.30	0.243	O I				1.89
7.000	1.40	0.30	0.250	O I				1.94
7.083	1.41	0.30	0.258	O I				1.98
7.167	1.42	0.30	0.266	O I				2.03
7.250	1.43	0.30	0.273	O I				2.08
7.333	1.46	0.30	0.281	O I				2.13
7.417	1.54	0.30	0.289	O I				2.18
7.500	1.62	0.30	0.298	O I				2.24
7.583	1.67	0.30	0.308	O I				2.30
7.667	1.77	0.30	0.317	O I				2.36
7.750	1.85	0.30	0.328	O I				2.43
7.833	1.91	0.30	0.339	O I				2.49
7.917	2.02	0.30	0.350	O I				2.57
8.000	2.10	0.30	0.362	O I				2.64
8.083	2.18	0.30	0.375	O I				2.72
8.167	2.37	0.30	0.389	O I				2.81
8.250	2.52	0.30	0.403	O I				2.92
8.333	2.59	0.30	0.419	O I				3.02
8.417	2.64	0.30	0.435	O I				3.13
8.500	2.67	0.30	0.451	O I				3.24
8.583	2.72	0.30	0.468	O I				3.35
8.667	2.81	0.30	0.485	O I				3.47
8.750	2.90	0.30	0.502	O I				3.59
8.833	2.95	0.30	0.520	O I				3.71
8.917	3.06	0.30	0.539	O I				3.85
9.000	3.15	0.30	0.558	O I				3.99
9.083	3.23	0.30	0.578	O I				4.14
9.167	3.41	0.30	0.599	O I				4.30
9.250	3.57	0.30	0.621	O I				4.46
9.333	3.65	0.30	0.644	O I				4.63
9.417	3.78	2.64	0.659	O I				4.78
9.500	3.88	3.55	0.664	OI				4.84
9.583	3.95	3.83	0.666	O				4.85
9.667	4.06	3.96	0.666	OI				4.86
9.750	4.15	4.07	0.667	O				4.87

9.833	4.22	4.16	0.667	|	|	|O |	|	4.87
9.917	4.33	4.25	0.668	|	|	| O |	|	4.88
10.000	4.42	4.34	0.669	|	|	| O |	|	4.88
10.083	4.33	4.37	0.669	|	|	| O |	|	4.88
10.167	3.81	4.14	0.667	|	|	IO |	|	4.87
10.250	3.36	3.72	0.665	|	|	IO| |	|	4.85
10.333	3.19	3.38	0.663	|	|	IO | |	|	4.83
10.417	3.10	3.20	0.662	|	|	O | |	|	4.82
10.500	3.03	3.10	0.662	|	|	IO | |	|	4.81
10.583	3.08	3.07	0.661	|	|	O | |	|	4.81
10.667	3.45	3.22	0.662	|	|	OI | |	|	4.82
10.750	3.76	3.51	0.664	|	|	O I |	|	4.83
10.833	3.88	3.75	0.665	|	|	OI |	|	4.85
10.917	3.94	3.87	0.666	|	|	O |	|	4.85
11.000	3.99	3.94	0.666	|	|	O |	|	4.86
11.083	4.00	3.98	0.667	|	|	OI |	|	4.86
11.167	3.94	3.97	0.666	|	|	O |	|	4.86
11.250	3.89	3.93	0.666	|	|	O |	|	4.86
11.333	3.89	3.90	0.666	|	|	O |	|	4.86
11.417	3.89	3.89	0.666	|	|	O |	|	4.86
11.500	3.89	3.89	0.666	|	|	O |	|	4.86
11.583	3.86	3.88	0.666	|	|	O |	|	4.86
11.667	3.71	3.81	0.666	|	|	IO |	|	4.85
11.750	3.58	3.68	0.665	|	|	O| |	|	4.84
11.833	3.54	3.59	0.664	|	|	O| |	|	4.84
11.917	3.59	3.57	0.664	|	|	O| |	|	4.84
12.000	3.64	3.60	0.664	|	|	O| |	|	4.84
12.083	3.78	3.69	0.665	|	|	OI |	|	4.84
12.167	4.34	3.97	0.666	|	|	O I |	|	4.86
12.250	4.82	4.44	0.669	|	|	| O I |	|	4.89
12.333	5.03	4.81	0.671	|	|	| OI |	|	4.91
12.417	5.22	5.05	0.672	|	|	| OI |	|	4.92
12.500	5.37	5.24	0.674	|	|	| O |	|	4.93
12.583	5.49	5.38	0.674	|	|	| OI|	|	4.94
12.667	5.70	5.55	0.675	|	|	| OI |	|	4.95
12.750	5.88	5.74	0.676	|	|	| OI |	|	4.96
12.833	5.99	5.89	0.677	|	|	| |O |	|	4.97
12.917	6.13	6.02	0.678	|	|	| |OI |	|	4.98
13.000	6.24	6.15	0.679	|	|	| O |	|	4.98
13.083	6.40	6.28	0.679	|	|	| OI |	|	4.99
13.167	6.84	6.54	0.681	|	|	| O I |	|	5.01
13.250	7.20	6.90	0.683	|	|	| OI |	|	5.03
13.333	7.35	7.19	0.684	|	|	| OI|	|	5.04
13.417	7.45	7.35	0.685	|	|	| O|	|	5.05
13.500	7.51	7.45	0.686	|	|	| OI	|	5.06
13.583	7.35	7.44	0.686	|	|	| O|	|	5.06
13.667	6.52	7.06	0.684	|	|	| I O |	|	5.04
13.750	5.81	6.37	0.680	|	|	I O |	|	5.00
13.833	5.53	5.84	0.677	|	|	IO |	|	4.97
13.917	5.38	5.55	0.675	|	|	IO| |	|	4.95
14.000	5.28	5.38	0.674	|	|	O | |	|	4.94
14.083	5.28	5.30	0.674	|	|	O | |	|	4.94
14.167	5.55	5.39	0.674	|	|	OI| |	|	4.94
14.250	5.78	5.60	0.676	|	|	OI |	|	4.95
14.333	5.83	5.76	0.676	|	|	O |	|	4.96
14.417	5.79	5.80	0.677	|	|	O |	|	4.96
14.500	5.75	5.78	0.677	|	|	O |	|	4.96
14.583	5.74	5.75	0.676	|	|	O |	|	4.96
14.667	5.73	5.74	0.676	|	|	O |	|	4.96
14.750	5.74	5.73	0.676	|	|	O |	|	4.96
14.833	5.73	5.73	0.676	|	|	O |	|	4.96
14.917	5.66	5.70	0.676	|	|	O |	|	4.96
15.000	5.59	5.64	0.676	|	|	IO |	|	4.96

15.083	5.55	5.59	0.675	|	|	| O	|	|	4.95
15.167	5.47	5.53	0.675	|	|	| O	|	|	4.95
15.250	5.39	5.45	0.675	|	|	| IO	|	|	4.95
15.333	5.34	5.39	0.674	|	|	| O	|	|	4.94
15.417	5.24	5.31	0.674	|	|	| O	|	|	4.94
15.500	5.16	5.23	0.673	|	|	| O	|	|	4.93
15.583	5.05	5.14	0.673	|	|	| O	|	|	4.93
15.667	4.72	4.95	0.672	|	|	| IO	|	|	4.92
15.750	4.43	4.66	0.670	|	|	| IO	|	|	4.90
15.833	4.32	4.44	0.669	|	|	| O	|	|	4.89
15.917	4.25	4.32	0.668	|	|	| O	|	|	4.88
16.000	4.20	4.25	0.668	|	|	|IO	|	|	4.88
16.083	3.89	4.10	0.667	|	|	IO	|	|	4.87
16.167	2.69	3.48	0.664	|	I O	|	|	|	4.83
16.250	1.66	2.48	0.658	|	I| O	|	|	|	4.77
16.333	1.24	1.69	0.654	|	I O|	|	|	|	4.73
16.417	1.00	1.26	0.651	|	IO |	|	|	|	4.70
16.500	0.84	1.00	0.650	|	IO |	|	|	|	4.69
16.583	0.70	0.83	0.649	|	IO |	|	|	|	4.68
16.667	0.54	0.67	0.648	|	O |	|	|	|	4.67
16.750	0.41	0.52	0.647	|	IO |	|	|	|	4.66
16.833	0.34	0.41	0.647	|	O |	|	|	|	4.66
16.917	0.28	0.33	0.646	|	O |	|	|	|	4.65
17.000	0.25	0.30	0.646	|	O |	|	|	|	4.65
17.083	0.26	0.30	0.646	|	O |	|	|	|	4.65
17.167	0.38	0.30	0.646	|	O |	|	|	|	4.65
17.250	0.52	0.38	0.646	|	OI |	|	|	|	4.65
17.333	0.57	0.50	0.647	|	O |	|	|	|	4.66
17.417	0.60	0.57	0.647	|	O |	|	|	|	4.67
17.500	0.62	0.60	0.648	|	O |	|	|	|	4.67
17.583	0.64	0.62	0.648	|	O |	|	|	|	4.67
17.667	0.65	0.64	0.648	|	O |	|	|	|	4.67
17.750	0.66	0.65	0.648	|	O |	|	|	|	4.67
17.833	0.65	0.66	0.648	|	O |	|	|	|	4.67
17.917	0.58	0.63	0.648	|	O |	|	|	|	4.67
18.000	0.52	0.57	0.647	|	O |	|	|	|	4.67
18.083	0.50	0.52	0.647	|	O |	|	|	|	4.66
18.167	0.49	0.50	0.647	|	O |	|	|	|	4.66
18.250	0.48	0.49	0.647	|	O |	|	|	|	4.66
18.333	0.48	0.48	0.647	|	O |	|	|	|	4.66
18.417	0.48	0.48	0.647	|	O |	|	|	|	4.66
18.500	0.47	0.48	0.647	|	O |	|	|	|	4.66
18.583	0.45	0.47	0.647	|	O |	|	|	|	4.66
18.667	0.38	0.43	0.647	|	O |	|	|	|	4.66
18.750	0.31	0.36	0.646	|	O |	|	|	|	4.65
18.833	0.30	0.32	0.646	|	O |	|	|	|	4.65
18.917	0.34	0.32	0.646	|	O |	|	|	|	4.65
19.000	0.37	0.35	0.646	|	O |	|	|	|	4.65
19.083	0.37	0.37	0.646	|	O |	|	|	|	4.65
19.167	0.33	0.35	0.646	|	O |	|	|	|	4.65
19.250	0.29	0.32	0.646	|	O |	|	|	|	4.65
19.333	0.29	0.30	0.646	|	O |	|	|	|	4.65
19.417	0.36	0.31	0.646	|	O |	|	|	|	4.65
19.500	0.43	0.37	0.646	|	O |	|	|	|	4.65
19.583	0.43	0.42	0.647	|	O |	|	|	|	4.66
19.667	0.37	0.40	0.647	|	O |	|	|	|	4.66
19.750	0.31	0.35	0.646	|	O |	|	|	|	4.65
19.833	0.27	0.31	0.646	|	O |	|	|	|	4.65
19.917	0.19	0.30	0.646	IO	|	|	|	|	4.65
20.000	0.11	0.30	0.644	IO	|	|	|	|	4.64
20.083	0.10	0.30	0.643	IO	|	|	|	|	4.63
20.167	0.16	0.30	0.642	IO	|	|	|	|	4.62
20.250	0.22	0.30	0.641	IO	|	|	|	|	4.61

20.333	0.24	0.30	0.641	|O	|	|	|	4.61
20.417	0.25	0.30	0.640	|O	|	|	|	4.61
20.500	0.26	0.30	0.640	|O	|	|	|	4.61
20.583	0.26	0.30	0.640	|O	|	|	|	4.60
20.667	0.26	0.30	0.640	|O	|	|	|	4.60
20.750	0.27	0.30	0.639	|O	|	|	|	4.60
20.833	0.25	0.30	0.639	|O	|	|	|	4.60
20.917	0.18	0.30	0.638	IO	|	|	|	4.59
21.000	0.11	0.30	0.637	IO	|	|	|	4.59
21.083	0.11	0.30	0.636	IO	|	|	|	4.58
21.167	0.18	0.30	0.635	IO	|	|	|	4.57
21.250	0.24	0.30	0.634	|O	|	|	|	4.56
21.333	0.24	0.30	0.634	|O	|	|	|	4.56
21.417	0.17	0.30	0.633	IO	|	|	|	4.55
21.500	0.11	0.30	0.632	IO	|	|	|	4.55
21.583	0.11	0.30	0.631	IO	|	|	|	4.54
21.667	0.18	0.30	0.630	IO	|	|	|	4.53
21.750	0.24	0.30	0.629	|O	|	|	|	4.52
21.833	0.24	0.30	0.629	|O	|	|	|	4.52
21.917	0.18	0.30	0.628	IO	|	|	|	4.52
22.000	0.12	0.30	0.627	IO	|	|	|	4.51
22.083	0.12	0.30	0.626	IO	|	|	|	4.50
22.167	0.19	0.30	0.625	IO	|	|	|	4.49
22.250	0.25	0.30	0.624	|O	|	|	|	4.49
22.333	0.25	0.30	0.624	|O	|	|	|	4.48
22.417	0.18	0.30	0.623	IO	|	|	|	4.48
22.500	0.13	0.30	0.622	IO	|	|	|	4.47
22.583	0.11	0.30	0.621	IO	|	|	|	4.46
22.667	0.10	0.30	0.620	IO	|	|	|	4.45
22.750	0.09	0.30	0.618	IO	|	|	|	4.44
22.833	0.09	0.30	0.617	IO	|	|	|	4.43
22.917	0.08	0.30	0.615	IO	|	|	|	4.42
23.000	0.08	0.30	0.614	IO	|	|	|	4.41
23.083	0.08	0.30	0.612	IO	|	|	|	4.40
23.167	0.08	0.30	0.611	IO	|	|	|	4.39
23.250	0.08	0.30	0.609	IO	|	|	|	4.37
23.333	0.08	0.30	0.608	IO	|	|	|	4.36
23.417	0.08	0.30	0.606	IO	|	|	|	4.35
23.500	0.08	0.30	0.605	IO	|	|	|	4.34
23.583	0.08	0.30	0.603	IO	|	|	|	4.33
23.667	0.08	0.30	0.602	IO	|	|	|	4.32
23.750	0.08	0.30	0.600	IO	|	|	|	4.31
23.833	0.08	0.30	0.599	IO	|	|	|	4.29
23.917	0.08	0.30	0.597	IO	|	|	|	4.28
24.000	0.08	0.30	0.596	IO	|	|	|	4.27
24.083	0.08	0.30	0.594	IO	|	|	|	4.26
24.167	0.05	0.30	0.592	IO	|	|	|	4.25
24.250	0.03	0.30	0.591	IO	|	|	|	4.23
24.333	0.02	0.30	0.589	IO	|	|	|	4.22
24.417	0.01	0.30	0.587	IO	|	|	|	4.21
24.500	0.01	0.30	0.585	IO	|	|	|	4.19
24.583	0.01	0.30	0.583	IO	|	|	|	4.18
24.667	0.01	0.30	0.581	IO	|	|	|	4.16
24.750	0.00	0.30	0.579	IO	|	|	|	4.15
24.833	0.00	0.30	0.577	IO	|	|	|	4.13
24.917	0.00	0.30	0.575	IO	|	|	|	4.11
25.000	0.00	0.30	0.573	IO	|	|	|	4.10
25.083	0.00	0.30	0.570	IO	|	|	|	4.08
25.167	0.00	0.30	0.568	IO	|	|	|	4.07
25.250	0.00	0.30	0.566	IO	|	|	|	4.05
25.333	0.00	0.30	0.564	IO	|	|	|	4.04
25.417	0.00	0.30	0.562	IO	|	|	|	4.02
25.500	0.00	0.30	0.560	IO	|	|	|	4.01

25.583	0.00	0.30	0.558	IO				3.99
25.667	0.00	0.30	0.556	IO				3.98
25.750	0.00	0.30	0.554	IO				3.96
25.833	0.00	0.30	0.552	IO				3.94
25.917	0.00	0.30	0.550	IO				3.93
26.000	0.00	0.30	0.548	IO				3.91
26.083	0.00	0.30	0.546	IO				3.90
26.167	0.00	0.30	0.544	IO				3.88
26.250	0.00	0.30	0.542	IO				3.87
26.333	0.00	0.30	0.539	IO				3.85
26.417	0.00	0.30	0.537	IO				3.84
26.500	0.00	0.30	0.535	IO				3.82
26.583	0.00	0.30	0.533	IO				3.80
26.667	0.00	0.30	0.531	IO				3.79
26.750	0.00	0.30	0.529	IO				3.77
26.833	0.00	0.30	0.527	IO				3.76
26.917	0.00	0.30	0.525	IO				3.74
27.000	0.00	0.30	0.523	IO				3.73
27.083	0.00	0.30	0.521	IO				3.72
27.167	0.00	0.30	0.519	IO				3.70
27.250	0.00	0.30	0.517	IO				3.69
27.333	0.00	0.30	0.515	IO				3.67
27.417	0.00	0.30	0.513	IO				3.66
27.500	0.00	0.30	0.511	IO				3.64
27.583	0.00	0.30	0.508	IO				3.63
27.667	0.00	0.30	0.506	IO				3.62
27.750	0.00	0.30	0.504	IO				3.60
27.833	0.00	0.30	0.502	IO				3.59
27.917	0.00	0.30	0.500	IO				3.57
28.000	0.00	0.30	0.498	IO				3.56
28.083	0.00	0.30	0.496	IO				3.55
28.167	0.00	0.30	0.494	IO				3.53
28.250	0.00	0.30	0.492	IO				3.52
28.333	0.00	0.30	0.490	IO				3.50
28.417	0.00	0.30	0.488	IO				3.49
28.500	0.00	0.30	0.486	IO				3.48
28.583	0.00	0.30	0.484	IO				3.46
28.667	0.00	0.30	0.482	IO				3.45
28.750	0.00	0.30	0.480	IO				3.43
28.833	0.00	0.30	0.478	IO				3.42
28.917	0.00	0.30	0.475	IO				3.41
29.000	0.00	0.30	0.473	IO				3.39
29.083	0.00	0.30	0.471	IO				3.38
29.167	0.00	0.30	0.469	IO				3.36
29.250	0.00	0.30	0.467	IO				3.35
29.333	0.00	0.30	0.465	IO				3.34
29.417	0.00	0.30	0.463	IO				3.32
29.500	0.00	0.30	0.461	IO				3.31
29.583	0.00	0.30	0.459	IO				3.29
29.667	0.00	0.30	0.457	IO				3.28
29.750	0.00	0.30	0.455	IO				3.27
29.833	0.00	0.30	0.453	IO				3.25
29.917	0.00	0.30	0.451	IO				3.24
30.000	0.00	0.30	0.449	IO				3.22
30.083	0.00	0.30	0.447	IO				3.21
30.167	0.00	0.30	0.444	IO				3.20
30.250	0.00	0.30	0.442	IO				3.18
30.333	0.00	0.30	0.440	IO				3.17
30.417	0.00	0.30	0.438	IO				3.15
30.500	0.00	0.30	0.436	IO				3.14
30.583	0.00	0.30	0.434	IO				3.12
30.667	0.00	0.30	0.432	IO				3.11
30.750	0.00	0.30	0.430	IO				3.10

30.833	0.00	0.30	0.428	IO				3.08
30.917	0.00	0.30	0.426	IO				3.07
31.000	0.00	0.30	0.424	IO				3.05
31.083	0.00	0.30	0.422	IO				3.04
31.167	0.00	0.30	0.420	IO				3.03
31.250	0.00	0.30	0.418	IO				3.01
31.333	0.00	0.30	0.416	IO				3.00
31.417	0.00	0.30	0.413	IO				2.98
31.500	0.00	0.30	0.411	IO				2.97
31.583	0.00	0.30	0.409	IO				2.96
31.667	0.00	0.30	0.407	IO				2.94
31.750	0.00	0.30	0.405	IO				2.93
31.833	0.00	0.30	0.403	IO				2.91
31.917	0.00	0.30	0.401	IO				2.90
32.000	0.00	0.30	0.399	IO				2.89
32.083	0.00	0.30	0.397	IO				2.87
32.167	0.00	0.30	0.395	IO				2.86
32.250	0.00	0.30	0.393	IO				2.84
32.333	0.00	0.30	0.391	IO				2.83
32.417	0.00	0.30	0.389	IO				2.82
32.500	0.00	0.30	0.387	IO				2.80
32.583	0.00	0.30	0.385	IO				2.79
32.667	0.00	0.30	0.382	IO				2.77
32.750	0.00	0.30	0.380	IO				2.76
32.833	0.00	0.30	0.378	IO				2.75
32.917	0.00	0.30	0.376	IO				2.73
33.000	0.00	0.30	0.374	IO				2.72
33.083	0.00	0.30	0.372	IO				2.71
33.167	0.00	0.30	0.370	IO				2.69
33.250	0.00	0.30	0.368	IO				2.68
33.333	0.00	0.30	0.366	IO				2.67
33.417	0.00	0.30	0.364	IO				2.65
33.500	0.00	0.30	0.362	IO				2.64
33.583	0.00	0.30	0.360	IO				2.63
33.667	0.00	0.30	0.358	IO				2.62
33.750	0.00	0.30	0.356	IO				2.60
33.833	0.00	0.30	0.354	IO				2.59
33.917	0.00	0.30	0.351	IO				2.58
34.000	0.00	0.30	0.349	IO				2.56
34.083	0.00	0.30	0.347	IO				2.55
34.167	0.00	0.30	0.345	IO				2.54
34.250	0.00	0.30	0.343	IO				2.52
34.333	0.00	0.30	0.341	IO				2.51
34.417	0.00	0.30	0.339	IO				2.50
34.500	0.00	0.30	0.337	IO				2.48
34.583	0.00	0.30	0.335	IO				2.47
34.667	0.00	0.30	0.333	IO				2.46
34.750	0.00	0.30	0.331	IO				2.45
34.833	0.00	0.30	0.329	IO				2.43
34.917	0.00	0.30	0.327	IO				2.42
35.000	0.00	0.30	0.325	IO				2.41
35.083	0.00	0.30	0.323	IO				2.39
35.167	0.00	0.30	0.320	IO				2.38
35.250	0.00	0.30	0.318	IO				2.37
35.333	0.00	0.30	0.316	IO				2.35
35.417	0.00	0.30	0.314	IO				2.34
35.500	0.00	0.30	0.312	IO				2.33
35.583	0.00	0.30	0.310	IO				2.31
35.667	0.00	0.30	0.308	IO				2.30
35.750	0.00	0.30	0.306	IO				2.29
35.833	0.00	0.30	0.304	IO				2.28
35.917	0.00	0.30	0.302	IO				2.26
36.000	0.00	0.30	0.300	IO				2.25

36.083	0.00	0.30	0.298	IO				2.24
36.167	0.00	0.30	0.296	IO				2.22
36.250	0.00	0.30	0.294	IO				2.21
36.333	0.00	0.30	0.292	IO				2.20
36.417	0.00	0.30	0.289	IO				2.18
36.500	0.00	0.30	0.287	IO				2.17
36.583	0.00	0.30	0.285	IO				2.16
36.667	0.00	0.30	0.283	IO				2.14
36.750	0.00	0.30	0.281	IO				2.13
36.833	0.00	0.30	0.279	IO				2.12
36.917	0.00	0.30	0.277	IO				2.11
37.000	0.00	0.30	0.275	IO				2.09
37.083	0.00	0.30	0.273	IO				2.08
37.167	0.00	0.30	0.271	IO				2.07
37.250	0.00	0.30	0.269	IO				2.05
37.333	0.00	0.30	0.267	IO				2.04
37.417	0.00	0.30	0.265	IO				2.03
37.500	0.00	0.30	0.263	IO				2.01
37.583	0.00	0.30	0.261	IO				2.00
37.667	0.00	0.30	0.258	IO				1.99
37.750	0.00	0.30	0.256	IO				1.97
37.833	0.00	0.30	0.254	IO				1.96
37.917	0.00	0.30	0.252	IO				1.95
38.000	0.00	0.30	0.250	IO				1.94
38.083	0.00	0.30	0.248	IO				1.92
38.167	0.00	0.30	0.246	IO				1.91
38.250	0.00	0.30	0.244	IO				1.90
38.333	0.00	0.30	0.242	IO				1.88
38.417	0.00	0.30	0.240	IO				1.87
38.500	0.00	0.30	0.238	IO				1.86
38.583	0.00	0.30	0.236	IO				1.84
38.667	0.00	0.30	0.234	IO				1.83
38.750	0.00	0.30	0.232	IO				1.82
38.833	0.00	0.30	0.230	IO				1.80
38.917	0.00	0.30	0.228	IO				1.79
39.000	0.00	0.30	0.225	IO				1.78
39.083	0.00	0.30	0.223	IO				1.77
39.167	0.00	0.30	0.221	IO				1.75
39.250	0.00	0.30	0.219	IO				1.74
39.333	0.00	0.30	0.217	IO				1.73
39.417	0.00	0.30	0.215	IO				1.71
39.500	0.00	0.30	0.213	IO				1.70
39.583	0.00	0.30	0.211	IO				1.69
39.667	0.00	0.30	0.209	IO				1.68
39.750	0.00	0.30	0.207	IO				1.66
39.833	0.00	0.30	0.205	IO				1.65
39.917	0.00	0.30	0.203	IO				1.64
40.000	0.00	0.30	0.201	IO				1.63
40.083	0.00	0.30	0.199	IO				1.61
40.167	0.00	0.30	0.197	IO				1.60
40.250	0.00	0.30	0.194	IO				1.59
40.333	0.00	0.30	0.192	IO				1.57
40.417	0.00	0.30	0.190	IO				1.56
40.500	0.00	0.30	0.188	IO				1.55
40.583	0.00	0.30	0.186	IO				1.54
40.667	0.00	0.30	0.184	IO				1.52
40.750	0.00	0.30	0.182	IO				1.51
40.833	0.00	0.30	0.180	IO				1.50
40.917	0.00	0.30	0.178	IO				1.49
41.000	0.00	0.30	0.176	IO				1.47
41.083	0.00	0.30	0.174	IO				1.46
41.167	0.00	0.30	0.172	IO				1.45
41.250	0.00	0.30	0.170	IO				1.44

41.333	0.00	0.30	0.168	IO				1.42
41.417	0.00	0.30	0.166	IO				1.41
41.500	0.00	0.30	0.163	IO				1.40
41.583	0.00	0.30	0.161	IO				1.38
41.667	0.00	0.30	0.159	IO				1.37
41.750	0.00	0.30	0.157	IO				1.36
41.833	0.00	0.30	0.155	IO				1.35
41.917	0.00	0.30	0.153	IO				1.33
42.000	0.00	0.30	0.151	IO				1.32
42.083	0.00	0.30	0.149	IO				1.31
42.167	0.00	0.30	0.147	IO				1.30
42.250	0.00	0.30	0.145	IO				1.28
42.333	0.00	0.30	0.143	IO				1.27
42.417	0.00	0.30	0.141	IO				1.26
42.500	0.00	0.30	0.139	IO				1.24
42.583	0.00	0.30	0.137	IO				1.23
42.667	0.00	0.30	0.135	IO				1.22
42.750	0.00	0.30	0.132	IO				1.21
42.833	0.00	0.30	0.130	IO				1.19
42.917	0.00	0.30	0.128	IO				1.18
43.000	0.00	0.30	0.126	IO				1.17
43.083	0.00	0.30	0.124	IO				1.16
43.167	0.00	0.30	0.122	IO				1.14
43.250	0.00	0.30	0.120	IO				1.13
43.333	0.00	0.30	0.118	IO				1.12
43.417	0.00	0.30	0.116	IO				1.11
43.500	0.00	0.30	0.114	IO				1.09
43.583	0.00	0.30	0.112	IO				1.08
43.667	0.00	0.30	0.110	IO				1.07
43.750	0.00	0.30	0.108	IO				1.05
43.833	0.00	0.30	0.106	IO				1.04
43.917	0.00	0.30	0.104	IO				1.03
44.000	0.00	0.30	0.101	IO				1.02
44.083	0.00	0.30	0.099	IO				1.00
44.167	0.00	0.30	0.097	IO				0.99
44.250	0.00	0.30	0.095	IO				0.98
44.333	0.00	0.30	0.093	IO				0.97
44.417	0.00	0.30	0.091	IO				0.95
44.500	0.00	0.30	0.089	IO				0.94
44.583	0.00	0.30	0.087	IO				0.93
44.667	0.00	0.30	0.085	IO				0.92
44.750	0.00	0.30	0.083	IO				0.90
44.833	0.00	0.30	0.081	IO				0.89
44.917	0.00	0.30	0.079	IO				0.88
45.000	0.00	0.30	0.077	IO				0.86
45.083	0.00	0.30	0.075	IO				0.85
45.167	0.00	0.30	0.073	IO				0.84
45.250	0.00	0.30	0.070	IO				0.83
45.333	0.00	0.30	0.068	IO				0.81
45.417	0.00	0.30	0.066	IO				0.80
45.500	0.00	0.30	0.064	IO				0.79
45.583	0.00	0.30	0.062	IO				0.78
45.667	0.00	0.30	0.060	IO				0.76
45.750	0.00	0.30	0.058	IO				0.75
45.833	0.00	0.29	0.056	IO				0.72
45.917	0.00	0.28	0.054	IO				0.70
46.000	0.00	0.27	0.052	IO				0.67
46.083	0.00	0.26	0.050	IO				0.65
46.167	0.00	0.25	0.049	IO				0.63
46.250	0.00	0.24	0.047	IO				0.61
46.333	0.00	0.23	0.045	O				0.59
46.417	0.00	0.23	0.044	O				0.56
46.500	0.00	0.22	0.042	O				0.55

46.583	0.00	0.21	0.041	O	|	|	|	|	0.53
46.667	0.00	0.20	0.039	O	|	|	|	|	0.51
46.750	0.00	0.20	0.038	O	|	|	|	|	0.49
46.833	0.00	0.19	0.037	O	|	|	|	|	0.47
46.917	0.00	0.18	0.035	O	|	|	|	|	0.46
47.000	0.00	0.18	0.034	O	|	|	|	|	0.44
47.083	0.00	0.17	0.033	O	|	|	|	|	0.42
47.167	0.00	0.16	0.032	O	|	|	|	|	0.41
47.250	0.00	0.16	0.031	O	|	|	|	|	0.40
47.333	0.00	0.15	0.030	O	|	|	|	|	0.38
47.417	0.00	0.15	0.028	O	|	|	|	|	0.37
47.500	0.00	0.14	0.027	O	|	|	|	|	0.36
47.583	0.00	0.14	0.027	O	|	|	|	|	0.34
47.667	0.00	0.13	0.026	O	|	|	|	|	0.33
47.750	0.00	0.13	0.025	O	|	|	|	|	0.32
47.833	0.00	0.12	0.024	O	|	|	|	|	0.31
47.917	0.00	0.12	0.023	O	|	|	|	|	0.30
48.000	0.00	0.11	0.022	O	|	|	|	|	0.29
48.083	0.00	0.11	0.021	O	|	|	|	|	0.28
48.167	0.00	0.11	0.021	O	|	|	|	|	0.27
48.250	0.00	0.10	0.020	O	|	|	|	|	0.26
48.333	0.00	0.10	0.019	O	|	|	|	|	0.25
48.417	0.00	0.10	0.019	O	|	|	|	|	0.24
48.500	0.00	0.09	0.018	O	|	|	|	|	0.23
48.583	0.00	0.09	0.017	O	|	|	|	|	0.22
48.667	0.00	0.09	0.017	O	|	|	|	|	0.22
48.750	0.00	0.08	0.016	O	|	|	|	|	0.21
48.833	0.00	0.08	0.016	O	|	|	|	|	0.20
48.917	0.00	0.08	0.015	O	|	|	|	|	0.19
49.000	0.00	0.07	0.014	O	|	|	|	|	0.19
49.083	0.00	0.07	0.014	O	|	|	|	|	0.18
49.167	0.00	0.07	0.013	O	|	|	|	|	0.17
49.250	0.00	0.07	0.013	O	|	|	|	|	0.17
49.333	0.00	0.06	0.013	O	|	|	|	|	0.16
49.417	0.00	0.06	0.012	O	|	|	|	|	0.16
49.500	0.00	0.06	0.012	O	|	|	|	|	0.15
49.583	0.00	0.06	0.011	O	|	|	|	|	0.15
49.667	0.00	0.06	0.011	O	|	|	|	|	0.14
49.750	0.00	0.05	0.011	O	|	|	|	|	0.14
49.833	0.00	0.05	0.010	O	|	|	|	|	0.13
49.917	0.00	0.05	0.010	O	|	|	|	|	0.13
50.000	0.00	0.05	0.009	O	|	|	|	|	0.12
50.083	0.00	0.05	0.009	O	|	|	|	|	0.12
50.167	0.00	0.05	0.009	O	|	|	|	|	0.11
50.250	0.00	0.04	0.008	O	|	|	|	|	0.11
50.333	0.00	0.04	0.008	O	|	|	|	|	0.11
50.417	0.00	0.04	0.008	O	|	|	|	|	0.10
50.500	0.00	0.04	0.008	O	|	|	|	|	0.10
50.583	0.00	0.04	0.007	O	|	|	|	|	0.10
50.667	0.00	0.04	0.007	O	|	|	|	|	0.09
50.750	0.00	0.04	0.007	O	|	|	|	|	0.09
50.833	0.00	0.03	0.007	O	|	|	|	|	0.09
50.917	0.00	0.03	0.006	O	|	|	|	|	0.08
51.000	0.00	0.03	0.006	O	|	|	|	|	0.08
51.083	0.00	0.03	0.006	O	|	|	|	|	0.08
51.167	0.00	0.03	0.006	O	|	|	|	|	0.07
51.250	0.00	0.03	0.006	O	|	|	|	|	0.07
51.333	0.00	0.03	0.005	O	|	|	|	|	0.07
51.417	0.00	0.03	0.005	O	|	|	|	|	0.07
51.500	0.00	0.03	0.005	O	|	|	|	|	0.06
51.583	0.00	0.02	0.005	O	|	|	|	|	0.06
51.667	0.00	0.02	0.005	O	|	|	|	|	0.06
51.750	0.00	0.02	0.004	O	|	|	|	|	0.06

51.833	0.00	0.02	0.004	O	|	|	|	|	0.06
51.917	0.00	0.02	0.004	O	|	|	|	|	0.05
52.000	0.00	0.02	0.004	O	|	|	|	|	0.05
52.083	0.00	0.02	0.004	O	|	|	|	|	0.05
52.167	0.00	0.02	0.004	O	|	|	|	|	0.05
52.250	0.00	0.02	0.004	O	|	|	|	|	0.05
52.333	0.00	0.02	0.003	O	|	|	|	|	0.05
52.417	0.00	0.02	0.003	O	|	|	|	|	0.04
52.500	0.00	0.02	0.003	O	|	|	|	|	0.04
52.583	0.00	0.02	0.003	O	|	|	|	|	0.04
52.667	0.00	0.02	0.003	O	|	|	|	|	0.04
52.750	0.00	0.02	0.003	O	|	|	|	|	0.04
52.833	0.00	0.01	0.003	O	|	|	|	|	0.04
52.917	0.00	0.01	0.003	O	|	|	|	|	0.04
53.000	0.00	0.01	0.003	O	|	|	|	|	0.03
53.083	0.00	0.01	0.003	O	|	|	|	|	0.03
53.167	0.00	0.01	0.002	O	|	|	|	|	0.03
53.250	0.00	0.01	0.002	O	|	|	|	|	0.03
53.333	0.00	0.01	0.002	O	|	|	|	|	0.03
53.417	0.00	0.01	0.002	O	|	|	|	|	0.03
53.500	0.00	0.01	0.002	O	|	|	|	|	0.03
53.583	0.00	0.01	0.002	O	|	|	|	|	0.03
53.667	0.00	0.01	0.002	O	|	|	|	|	0.03
53.750	0.00	0.01	0.002	O	|	|	|	|	0.02
53.833	0.00	0.01	0.002	O	|	|	|	|	0.02
53.917	0.00	0.01	0.002	O	|	|	|	|	0.02
54.000	0.00	0.01	0.002	O	|	|	|	|	0.02
54.083	0.00	0.01	0.002	O	|	|	|	|	0.02
54.167	0.00	0.01	0.002	O	|	|	|	|	0.02
54.250	0.00	0.01	0.002	O	|	|	|	|	0.02
54.333	0.00	0.01	0.001	O	|	|	|	|	0.02
54.417	0.00	0.01	0.001	O	|	|	|	|	0.02
54.500	0.00	0.01	0.001	O	|	|	|	|	0.02
54.583	0.00	0.01	0.001	O	|	|	|	|	0.02
54.667	0.00	0.01	0.001	O	|	|	|	|	0.02
54.750	0.00	0.01	0.001	O	|	|	|	|	0.02
54.833	0.00	0.01	0.001	O	|	|	|	|	0.02
54.917	0.00	0.01	0.001	O	|	|	|	|	0.01
55.000	0.00	0.01	0.001	O	|	|	|	|	0.01
55.083	0.00	0.01	0.001	O	|	|	|	|	0.01
55.167	0.00	0.01	0.001	O	|	|	|	|	0.01
55.250	0.00	0.01	0.001	O	|	|	|	|	0.01
55.333	0.00	0.00	0.001	O	|	|	|	|	0.01
55.417	0.00	0.00	0.001	O	|	|	|	|	0.01
55.500	0.00	0.00	0.001	O	|	|	|	|	0.01
55.583	0.00	0.00	0.001	O	|	|	|	|	0.01
55.667	0.00	0.00	0.001	O	|	|	|	|	0.01
55.750	0.00	0.00	0.001	O	|	|	|	|	0.01
55.833	0.00	0.00	0.001	O	|	|	|	|	0.01
55.917	0.00	0.00	0.001	O	|	|	|	|	0.01
56.000	0.00	0.00	0.001	O	|	|	|	|	0.01
56.083	0.00	0.00	0.001	O	|	|	|	|	0.01
56.167	0.00	0.00	0.001	O	|	|	|	|	0.01
56.250	0.00	0.00	0.001	O	|	|	|	|	0.01
56.333	0.00	0.00	0.001	O	|	|	|	|	0.01
56.417	0.00	0.00	0.001	O	|	|	|	|	0.01
56.500	0.00	0.00	0.001	O	|	|	|	|	0.01
56.583	0.00	0.00	0.001	O	|	|	|	|	0.01
56.667	0.00	0.00	0.001	O	|	|	|	|	0.01
56.750	0.00	0.00	0.001	O	|	|	|	|	0.01
56.833	0.00	0.00	0.001	O	|	|	|	|	0.01
56.917	0.00	0.00	0.000	O	|	|	|	|	0.01
57.000	0.00	0.00	0.000	O	|	|	|	|	0.01

57.083	0.00	0.00	0.000	O	|	|	|	|	0.01
57.167	0.00	0.00	0.000	O	|	|	|	|	0.01
57.250	0.00	0.00	0.000	O	|	|	|	|	0.01
57.333	0.00	0.00	0.000	O	|	|	|	|	0.01
57.417	0.00	0.00	0.000	O	|	|	|	|	0.01
57.500	0.00	0.00	0.000	O	|	|	|	|	0.00
57.583	0.00	0.00	0.000	O	|	|	|	|	0.00
57.667	0.00	0.00	0.000	O	|	|	|	|	0.00
57.750	0.00	0.00	0.000	O	|	|	|	|	0.00
57.833	0.00	0.00	0.000	O	|	|	|	|	0.00
57.917	0.00	0.00	0.000	O	|	|	|	|	0.00
58.000	0.00	0.00	0.000	O	|	|	|	|	0.00
58.083	0.00	0.00	0.000	O	|	|	|	|	0.00
58.167	0.00	0.00	0.000	O	|	|	|	|	0.00
58.250	0.00	0.00	0.000	O	|	|	|	|	0.00
58.333	0.00	0.00	0.000	O	|	|	|	|	0.00
58.417	0.00	0.00	0.000	O	|	|	|	|	0.00
58.500	0.00	0.00	0.000	O	|	|	|	|	0.00
58.583	0.00	0.00	0.000	O	|	|	|	|	0.00
58.667	0.00	0.00	0.000	O	|	|	|	|	0.00
58.750	0.00	0.00	0.000	O	|	|	|	|	0.00
58.833	0.00	0.00	0.000	O	|	|	|	|	0.00
58.917	0.00	0.00	0.000	O	|	|	|	|	0.00
59.000	0.00	0.00	0.000	O	|	|	|	|	0.00
59.083	0.00	0.00	0.000	O	|	|	|	|	0.00
59.167	0.00	0.00	0.000	O	|	|	|	|	0.00

**********HYDROGRAPH DATA**********

Number of intervals = 710
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 7.448 (CFS)
Total volume = 3.809 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
Study date: 08/24/23

CORE5 - ETHANAC BUSINESS PARK
100 YEAR 1 HOUR STORM EVENT BASIN ROUTING
5288Q100BR1
DS

Program License Serial Number 6145

********** HYDROGRAPH INFORMATION **********

From study/file name: 5288Q100PUH1100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 25
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 33.048 (CFS)
Total volume = 1.452 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

++
Process from Point/Station 0.000 to Point/Station 0.000
**** RETARDING BASIN ROUTING ****
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User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 25
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.750	0.058	0.300	0.057	0.059
1.750	0.221	0.300	0.220	0.222
2.750	0.379	0.300	0.378	0.380
3.750	0.526	0.300	0.525	0.527
4.650	0.646	0.300	0.645	0.647
5.750	0.753	19.510	0.686	0.820

6.750 0.831 50.970 0.655 1.007

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 8.3 16.52 24.79 33.05	Depth (Ft.)
0.083	0.64	0.01	0.002	O	0.03
0.167	3.36	0.08	0.016	O I	0.20
0.250	5.86	0.24	0.046	O I	0.60
0.333	7.33	0.30	0.090	O I	0.95
0.417	8.45	0.30	0.142	O I	1.27
0.500	9.67	0.30	0.202	O I	1.64
0.583	11.16	0.30	0.272	O I	2.07
0.667	12.87	0.30	0.353	O I	2.58
0.750	15.36	0.30	0.448	O I	3.22
0.833	22.05	0.30	0.575	O I	4.12
0.917	33.05	13.22	0.718	O I	5.39
1.000	28.51	30.35	0.780	I O	6.09
1.083	17.80	21.98	0.759	I O	5.83
1.167	11.04	15.36	0.730	I O	5.51
1.250	6.70	10.40	0.702	I O	5.23
1.333	4.69	6.81	0.682	I O	5.02
1.417	3.38	4.69	0.670	IO	4.90
1.500	2.58	3.38	0.663	IO	4.83
1.583	1.96	2.53	0.658	IO	4.78
1.667	1.48	1.91	0.655	O	4.74
1.750	1.09	1.43	0.652	O	4.71
1.833	0.81	1.06	0.650	IO	4.69
1.917	0.70	0.83	0.649	O	4.68
2.000	0.18	0.53	0.647	O	4.66
2.083	0.09	0.30	0.645	O	4.65
2.167	0.00	0.30	0.644	O	4.63
2.250	0.00	0.30	0.642	O	4.62
2.333	0.00	0.30	0.639	O	4.60
2.417	0.00	0.30	0.637	O	4.59
2.500	0.00	0.30	0.635	O	4.57
2.583	0.00	0.30	0.633	O	4.55
2.667	0.00	0.30	0.631	O	4.54
2.750	0.00	0.30	0.629	O	4.52
2.833	0.00	0.30	0.627	O	4.51
2.917	0.00	0.30	0.625	O	4.49
3.000	0.00	0.30	0.623	O	4.48
3.083	0.00	0.30	0.621	O	4.46
3.167	0.00	0.30	0.619	O	4.45
3.250	0.00	0.30	0.617	O	4.43
3.333	0.00	0.30	0.615	O	4.41
3.417	0.00	0.30	0.613	O	4.40
3.500	0.00	0.30	0.611	O	4.38
3.583	0.00	0.30	0.608	O	4.37
3.667	0.00	0.30	0.606	O	4.35
3.750	0.00	0.30	0.604	O	4.34
3.833	0.00	0.30	0.602	O	4.32
3.917	0.00	0.30	0.600	O	4.31
4.000	0.00	0.30	0.598	O	4.29
4.083	0.00	0.30	0.596	O	4.28
4.167	0.00	0.30	0.594	O	4.26
4.250	0.00	0.30	0.592	O	4.24
4.333	0.00	0.30	0.590	O	4.23
4.417	0.00	0.30	0.588	O	4.21
4.500	0.00	0.30	0.586	O	4.20

4.583	0.00	0.30	0.584	O	|	|	|	|	4.18
4.667	0.00	0.30	0.582	O	|	|	|	|	4.17
4.750	0.00	0.30	0.580	O	|	|	|	|	4.15
4.833	0.00	0.30	0.577	O	|	|	|	|	4.14
4.917	0.00	0.30	0.575	O	|	|	|	|	4.12
5.000	0.00	0.30	0.573	O	|	|	|	|	4.10
5.083	0.00	0.30	0.571	O	|	|	|	|	4.09
5.167	0.00	0.30	0.569	O	|	|	|	|	4.07
5.250	0.00	0.30	0.567	O	|	|	|	|	4.06
5.333	0.00	0.30	0.565	O	|	|	|	|	4.04
5.417	0.00	0.30	0.563	O	|	|	|	|	4.03
5.500	0.00	0.30	0.561	O	|	|	|	|	4.01
5.583	0.00	0.30	0.559	O	|	|	|	|	4.00
5.667	0.00	0.30	0.557	O	|	|	|	|	3.98
5.750	0.00	0.30	0.555	O	|	|	|	|	3.97
5.833	0.00	0.30	0.553	O	|	|	|	|	3.95
5.917	0.00	0.30	0.551	O	|	|	|	|	3.93
6.000	0.00	0.30	0.549	O	|	|	|	|	3.92
6.083	0.00	0.30	0.546	O	|	|	|	|	3.90
6.167	0.00	0.30	0.544	O	|	|	|	|	3.89
6.250	0.00	0.30	0.542	O	|	|	|	|	3.87
6.333	0.00	0.30	0.540	O	|	|	|	|	3.86
6.417	0.00	0.30	0.538	O	|	|	|	|	3.84
6.500	0.00	0.30	0.536	O	|	|	|	|	3.83
6.583	0.00	0.30	0.534	O	|	|	|	|	3.81
6.667	0.00	0.30	0.532	O	|	|	|	|	3.80
6.750	0.00	0.30	0.530	O	|	|	|	|	3.78
6.833	0.00	0.30	0.528	O	|	|	|	|	3.76
6.917	0.00	0.30	0.526	O	|	|	|	|	3.75
7.000	0.00	0.30	0.524	O	|	|	|	|	3.73
7.083	0.00	0.30	0.522	O	|	|	|	|	3.72
7.167	0.00	0.30	0.520	O	|	|	|	|	3.71
7.250	0.00	0.30	0.518	O	|	|	|	|	3.69
7.333	0.00	0.30	0.515	O	|	|	|	|	3.68
7.417	0.00	0.30	0.513	O	|	|	|	|	3.66
7.500	0.00	0.30	0.511	O	|	|	|	|	3.65
7.583	0.00	0.30	0.509	O	|	|	|	|	3.64
7.667	0.00	0.30	0.507	O	|	|	|	|	3.62
7.750	0.00	0.30	0.505	O	|	|	|	|	3.61
7.833	0.00	0.30	0.503	O	|	|	|	|	3.59
7.917	0.00	0.30	0.501	O	|	|	|	|	3.58
8.000	0.00	0.30	0.499	O	|	|	|	|	3.57
8.083	0.00	0.30	0.497	O	|	|	|	|	3.55
8.167	0.00	0.30	0.495	O	|	|	|	|	3.54
8.250	0.00	0.30	0.493	O	|	|	|	|	3.52
8.333	0.00	0.30	0.491	O	|	|	|	|	3.51
8.417	0.00	0.30	0.489	O	|	|	|	|	3.50
8.500	0.00	0.30	0.487	O	|	|	|	|	3.48
8.583	0.00	0.30	0.484	O	|	|	|	|	3.47
8.667	0.00	0.30	0.482	O	|	|	|	|	3.45
8.750	0.00	0.30	0.480	O	|	|	|	|	3.44
8.833	0.00	0.30	0.478	O	|	|	|	|	3.43
8.917	0.00	0.30	0.476	O	|	|	|	|	3.41
9.000	0.00	0.30	0.474	O	|	|	|	|	3.40
9.083	0.00	0.30	0.472	O	|	|	|	|	3.38
9.167	0.00	0.30	0.470	O	|	|	|	|	3.37
9.250	0.00	0.30	0.468	O	|	|	|	|	3.36
9.333	0.00	0.30	0.466	O	|	|	|	|	3.34
9.417	0.00	0.30	0.464	O	|	|	|	|	3.33
9.500	0.00	0.30	0.462	O	|	|	|	|	3.31
9.583	0.00	0.30	0.460	O	|	|	|	|	3.30
9.667	0.00	0.30	0.458	O	|	|	|	|	3.28
9.750	0.00	0.30	0.456	O	|	|	|	|	3.27

9.833	0.00	0.30	0.453	O				3.26
9.917	0.00	0.30	0.451	O				3.24
10.000	0.00	0.30	0.449	O				3.23
10.083	0.00	0.30	0.447	O				3.21
10.167	0.00	0.30	0.445	O				3.20
10.250	0.00	0.30	0.443	O				3.19
10.333	0.00	0.30	0.441	O				3.17
10.417	0.00	0.30	0.439	O				3.16
10.500	0.00	0.30	0.437	O				3.14
10.583	0.00	0.30	0.435	O				3.13
10.667	0.00	0.30	0.433	O				3.12
10.750	0.00	0.30	0.431	O				3.10
10.833	0.00	0.30	0.429	O				3.09
10.917	0.00	0.30	0.427	O				3.07
11.000	0.00	0.30	0.425	O				3.06
11.083	0.00	0.30	0.422	O				3.05
11.167	0.00	0.30	0.420	O				3.03
11.250	0.00	0.30	0.418	O				3.02
11.333	0.00	0.30	0.416	O				3.00
11.417	0.00	0.30	0.414	O				2.99
11.500	0.00	0.30	0.412	O				2.98
11.583	0.00	0.30	0.410	O				2.96
11.667	0.00	0.30	0.408	O				2.95
11.750	0.00	0.30	0.406	O				2.93
11.833	0.00	0.30	0.404	O				2.92
11.917	0.00	0.30	0.402	O				2.91
12.000	0.00	0.30	0.400	O				2.89
12.083	0.00	0.30	0.398	O				2.88
12.167	0.00	0.30	0.396	O				2.86
12.250	0.00	0.30	0.394	O				2.85
12.333	0.00	0.30	0.392	O				2.84
12.417	0.00	0.30	0.389	O				2.82
12.500	0.00	0.30	0.387	O				2.81
12.583	0.00	0.30	0.385	O				2.79
12.667	0.00	0.30	0.383	O				2.78
12.750	0.00	0.30	0.381	O				2.76
12.833	0.00	0.30	0.379	O				2.75
12.917	0.00	0.30	0.377	O				2.74
13.000	0.00	0.30	0.375	O				2.72
13.083	0.00	0.30	0.373	O				2.71
13.167	0.00	0.30	0.371	O				2.70
13.250	0.00	0.30	0.369	O				2.69
13.333	0.00	0.30	0.367	O				2.67
13.417	0.00	0.30	0.365	O				2.66
13.500	0.00	0.30	0.363	O				2.65
13.583	0.00	0.30	0.361	O				2.63
13.667	0.00	0.30	0.358	O				2.62
13.750	0.00	0.30	0.356	O				2.61
13.833	0.00	0.30	0.354	O				2.59
13.917	0.00	0.30	0.352	O				2.58
14.000	0.00	0.30	0.350	O				2.57
14.083	0.00	0.30	0.348	O				2.55
14.167	0.00	0.30	0.346	O				2.54
14.250	0.00	0.30	0.344	O				2.53
14.333	0.00	0.30	0.342	O				2.52
14.417	0.00	0.30	0.340	O				2.50
14.500	0.00	0.30	0.338	O				2.49
14.583	0.00	0.30	0.336	O				2.48
14.667	0.00	0.30	0.334	O				2.46
14.750	0.00	0.30	0.332	O				2.45
14.833	0.00	0.30	0.330	O				2.44
14.917	0.00	0.30	0.327	O				2.42
15.000	0.00	0.30	0.325	O				2.41

15.083	0.00	0.30	0.323	O	|	|	|	2.40
15.167	0.00	0.30	0.321	O	|	|	|	2.38
15.250	0.00	0.30	0.319	O	|	|	|	2.37
15.333	0.00	0.30	0.317	O	|	|	|	2.36
15.417	0.00	0.30	0.315	O	|	|	|	2.35
15.500	0.00	0.30	0.313	O	|	|	|	2.33
15.583	0.00	0.30	0.311	O	|	|	|	2.32
15.667	0.00	0.30	0.309	O	|	|	|	2.31
15.750	0.00	0.30	0.307	O	|	|	|	2.29
15.833	0.00	0.30	0.305	O	|	|	|	2.28
15.917	0.00	0.30	0.303	O	|	|	|	2.27
16.000	0.00	0.30	0.301	O	|	|	|	2.25
16.083	0.00	0.30	0.299	O	|	|	|	2.24
16.167	0.00	0.30	0.296	O	|	|	|	2.23
16.250	0.00	0.30	0.294	O	|	|	|	2.21
16.333	0.00	0.30	0.292	O	|	|	|	2.20
16.417	0.00	0.30	0.290	O	|	|	|	2.19
16.500	0.00	0.30	0.288	O	|	|	|	2.18
16.583	0.00	0.30	0.286	O	|	|	|	2.16
16.667	0.00	0.30	0.284	O	|	|	|	2.15
16.750	0.00	0.30	0.282	O	|	|	|	2.14
16.833	0.00	0.30	0.280	O	|	|	|	2.12
16.917	0.00	0.30	0.278	O	|	|	|	2.11
17.000	0.00	0.30	0.276	O	|	|	|	2.10
17.083	0.00	0.30	0.274	O	|	|	|	2.08
17.167	0.00	0.30	0.272	O	|	|	|	2.07
17.250	0.00	0.30	0.270	O	|	|	|	2.06
17.333	0.00	0.30	0.268	O	|	|	|	2.04
17.417	0.00	0.30	0.265	O	|	|	|	2.03
17.500	0.00	0.30	0.263	O	|	|	|	2.02
17.583	0.00	0.30	0.261	O	|	|	|	2.01
17.667	0.00	0.30	0.259	O	|	|	|	1.99
17.750	0.00	0.30	0.257	O	|	|	|	1.98
17.833	0.00	0.30	0.255	O	|	|	|	1.97
17.917	0.00	0.30	0.253	O	|	|	|	1.95
18.000	0.00	0.30	0.251	O	|	|	|	1.94
18.083	0.00	0.30	0.249	O	|	|	|	1.93
18.167	0.00	0.30	0.247	O	|	|	|	1.91
18.250	0.00	0.30	0.245	O	|	|	|	1.90
18.333	0.00	0.30	0.243	O	|	|	|	1.89
18.417	0.00	0.30	0.241	O	|	|	|	1.87
18.500	0.00	0.30	0.239	O	|	|	|	1.86
18.583	0.00	0.30	0.237	O	|	|	|	1.85
18.667	0.00	0.30	0.234	O	|	|	|	1.84
18.750	0.00	0.30	0.232	O	|	|	|	1.82
18.833	0.00	0.30	0.230	O	|	|	|	1.81
18.917	0.00	0.30	0.228	O	|	|	|	1.80
19.000	0.00	0.30	0.226	O	|	|	|	1.78
19.083	0.00	0.30	0.224	O	|	|	|	1.77
19.167	0.00	0.30	0.222	O	|	|	|	1.76
19.250	0.00	0.30	0.220	O	|	|	|	1.74
19.333	0.00	0.30	0.218	O	|	|	|	1.73
19.417	0.00	0.30	0.216	O	|	|	|	1.72
19.500	0.00	0.30	0.214	O	|	|	|	1.71
19.583	0.00	0.30	0.212	O	|	|	|	1.69
19.667	0.00	0.30	0.210	O	|	|	|	1.68
19.750	0.00	0.30	0.208	O	|	|	|	1.67
19.833	0.00	0.30	0.206	O	|	|	|	1.66
19.917	0.00	0.30	0.203	O	|	|	|	1.64
20.000	0.00	0.30	0.201	O	|	|	|	1.63
20.083	0.00	0.30	0.199	O	|	|	|	1.62
20.167	0.00	0.30	0.197	O	|	|	|	1.60
20.250	0.00	0.30	0.195	O	|	|	|	1.59

20.333	0.00	0.30	0.193	O	|	|	|	|	1.58
20.417	0.00	0.30	0.191	O	|	|	|	|	1.57
20.500	0.00	0.30	0.189	O	|	|	|	|	1.55
20.583	0.00	0.30	0.187	O	|	|	|	|	1.54
20.667	0.00	0.30	0.185	O	|	|	|	|	1.53
20.750	0.00	0.30	0.183	O	|	|	|	|	1.52
20.833	0.00	0.30	0.181	O	|	|	|	|	1.50
20.917	0.00	0.30	0.179	O	|	|	|	|	1.49
21.000	0.00	0.30	0.177	O	|	|	|	|	1.48
21.083	0.00	0.30	0.175	O	|	|	|	|	1.47
21.167	0.00	0.30	0.172	O	|	|	|	|	1.45
21.250	0.00	0.30	0.170	O	|	|	|	|	1.44
21.333	0.00	0.30	0.168	O	|	|	|	|	1.43
21.417	0.00	0.30	0.166	O	|	|	|	|	1.41
21.500	0.00	0.30	0.164	O	|	|	|	|	1.40
21.583	0.00	0.30	0.162	O	|	|	|	|	1.39
21.667	0.00	0.30	0.160	O	|	|	|	|	1.38
21.750	0.00	0.30	0.158	O	|	|	|	|	1.36
21.833	0.00	0.30	0.156	O	|	|	|	|	1.35
21.917	0.00	0.30	0.154	O	|	|	|	|	1.34
22.000	0.00	0.30	0.152	O	|	|	|	|	1.33
22.083	0.00	0.30	0.150	O	|	|	|	|	1.31
22.167	0.00	0.30	0.148	O	|	|	|	|	1.30
22.250	0.00	0.30	0.146	O	|	|	|	|	1.29
22.333	0.00	0.30	0.144	O	|	|	|	|	1.27
22.417	0.00	0.30	0.142	O	|	|	|	|	1.26
22.500	0.00	0.30	0.139	O	|	|	|	|	1.25
22.583	0.00	0.30	0.137	O	|	|	|	|	1.24
22.667	0.00	0.30	0.135	O	|	|	|	|	1.22
22.750	0.00	0.30	0.133	O	|	|	|	|	1.21
22.833	0.00	0.30	0.131	O	|	|	|	|	1.20
22.917	0.00	0.30	0.129	O	|	|	|	|	1.19
23.000	0.00	0.30	0.127	O	|	|	|	|	1.17
23.083	0.00	0.30	0.125	O	|	|	|	|	1.16
23.167	0.00	0.30	0.123	O	|	|	|	|	1.15
23.250	0.00	0.30	0.121	O	|	|	|	|	1.14
23.333	0.00	0.30	0.119	O	|	|	|	|	1.12
23.417	0.00	0.30	0.117	O	|	|	|	|	1.11
23.500	0.00	0.30	0.115	O	|	|	|	|	1.10
23.583	0.00	0.30	0.113	O	|	|	|	|	1.08
23.667	0.00	0.30	0.111	O	|	|	|	|	1.07
23.750	0.00	0.30	0.108	O	|	|	|	|	1.06
23.833	0.00	0.30	0.106	O	|	|	|	|	1.05
23.917	0.00	0.30	0.104	O	|	|	|	|	1.03
24.000	0.00	0.30	0.102	O	|	|	|	|	1.02
24.083	0.00	0.30	0.100	O	|	|	|	|	1.01
24.167	0.00	0.30	0.098	O	|	|	|	|	1.00
24.250	0.00	0.30	0.096	O	|	|	|	|	0.98
24.333	0.00	0.30	0.094	O	|	|	|	|	0.97
24.417	0.00	0.30	0.092	O	|	|	|	|	0.96
24.500	0.00	0.30	0.090	O	|	|	|	|	0.95
24.583	0.00	0.30	0.088	O	|	|	|	|	0.93
24.667	0.00	0.30	0.086	O	|	|	|	|	0.92
24.750	0.00	0.30	0.084	O	|	|	|	|	0.91
24.833	0.00	0.30	0.082	O	|	|	|	|	0.89
24.917	0.00	0.30	0.080	O	|	|	|	|	0.88
25.000	0.00	0.30	0.077	O	|	|	|	|	0.87
25.083	0.00	0.30	0.075	O	|	|	|	|	0.86
25.167	0.00	0.30	0.073	O	|	|	|	|	0.84
25.250	0.00	0.30	0.071	O	|	|	|	|	0.83
25.333	0.00	0.30	0.069	O	|	|	|	|	0.82
25.417	0.00	0.30	0.067	O	|	|	|	|	0.81
25.500	0.00	0.30	0.065	O	|	|	|	|	0.79

25.583	0.00	0.30	0.063	O	|	|	|	0.78
25.667	0.00	0.30	0.061	O	|	|	|	0.77
25.750	0.00	0.30	0.059	O	|	|	|	0.76
25.833	0.00	0.29	0.057	O	|	|	|	0.73
25.917	0.00	0.28	0.055	O	|	|	|	0.71
26.000	0.00	0.27	0.053	O	|	|	|	0.68
26.083	0.00	0.26	0.051	O	|	|	|	0.66
26.167	0.00	0.25	0.049	O	|	|	|	0.64
26.250	0.00	0.25	0.048	O	|	|	|	0.61
26.333	0.00	0.24	0.046	O	|	|	|	0.59
26.417	0.00	0.23	0.044	O	|	|	|	0.57
26.500	0.00	0.22	0.043	O	|	|	|	0.55
26.583	0.00	0.21	0.041	O	|	|	|	0.53
26.667	0.00	0.21	0.040	O	|	|	|	0.51
26.750	0.00	0.20	0.038	O	|	|	|	0.50
26.833	0.00	0.19	0.037	O	|	|	|	0.48
26.917	0.00	0.18	0.036	O	|	|	|	0.46
27.000	0.00	0.18	0.035	O	|	|	|	0.45
27.083	0.00	0.17	0.033	O	|	|	|	0.43
27.167	0.00	0.17	0.032	O	|	|	|	0.42
27.250	0.00	0.16	0.031	O	|	|	|	0.40
27.333	0.00	0.15	0.030	O	|	|	|	0.39
27.417	0.00	0.15	0.029	O	|	|	|	0.37
27.500	0.00	0.14	0.028	O	|	|	|	0.36
27.583	0.00	0.14	0.027	O	|	|	|	0.35
27.667	0.00	0.13	0.026	O	|	|	|	0.34
27.750	0.00	0.13	0.025	O	|	|	|	0.32
27.833	0.00	0.12	0.024	O	|	|	|	0.31
27.917	0.00	0.12	0.023	O	|	|	|	0.30
28.000	0.00	0.12	0.023	O	|	|	|	0.29
28.083	0.00	0.11	0.022	O	|	|	|	0.28
28.167	0.00	0.11	0.021	O	|	|	|	0.27
28.250	0.00	0.10	0.020	O	|	|	|	0.26
28.333	0.00	0.10	0.020	O	|	|	|	0.25
28.417	0.00	0.10	0.019	O	|	|	|	0.24
28.500	0.00	0.09	0.018	O	|	|	|	0.23
28.583	0.00	0.09	0.018	O	|	|	|	0.23
28.667	0.00	0.09	0.017	O	|	|	|	0.22
28.750	0.00	0.08	0.016	O	|	|	|	0.21
28.833	0.00	0.08	0.016	O	|	|	|	0.20
28.917	0.00	0.08	0.015	O	|	|	|	0.20
29.000	0.00	0.08	0.015	O	|	|	|	0.19
29.083	0.00	0.07	0.014	O	|	|	|	0.18
29.167	0.00	0.07	0.014	O	|	|	|	0.18
29.250	0.00	0.07	0.013	O	|	|	|	0.17
29.333	0.00	0.07	0.013	O	|	|	|	0.16
29.417	0.00	0.06	0.012	O	|	|	|	0.16
29.500	0.00	0.06	0.012	O	|	|	|	0.15
29.583	0.00	0.06	0.011	O	|	|	|	0.15
29.667	0.00	0.06	0.011	O	|	|	|	0.14
29.750	0.00	0.06	0.011	O	|	|	|	0.14
29.833	0.00	0.05	0.010	O	|	|	|	0.13
29.917	0.00	0.05	0.010	O	|	|	|	0.13
30.000	0.00	0.05	0.010	O	|	|	|	0.12
30.083	0.00	0.05	0.009	O	|	|	|	0.12
30.167	0.00	0.05	0.009	O	|	|	|	0.12
30.250	0.00	0.04	0.009	O	|	|	|	0.11
30.333	0.00	0.04	0.008	O	|	|	|	0.11
30.417	0.00	0.04	0.008	O	|	|	|	0.10
30.500	0.00	0.04	0.008	O	|	|	|	0.10
30.583	0.00	0.04	0.007	O	|	|	|	0.10
30.667	0.00	0.04	0.007	O	|	|	|	0.09
30.750	0.00	0.04	0.007	O	|	|	|	0.09

30.833	0.00	0.03	0.007	O	|	|	|	|	0.09
30.917	0.00	0.03	0.006	O	|	|	|	|	0.08
31.000	0.00	0.03	0.006	O	|	|	|	|	0.08
31.083	0.00	0.03	0.006	O	|	|	|	|	0.08
31.167	0.00	0.03	0.006	O	|	|	|	|	0.08
31.250	0.00	0.03	0.006	O	|	|	|	|	0.07
31.333	0.00	0.03	0.005	O	|	|	|	|	0.07
31.417	0.00	0.03	0.005	O	|	|	|	|	0.07
31.500	0.00	0.03	0.005	O	|	|	|	|	0.07
31.583	0.00	0.03	0.005	O	|	|	|	|	0.06
31.667	0.00	0.02	0.005	O	|	|	|	|	0.06
31.750	0.00	0.02	0.005	O	|	|	|	|	0.06
31.833	0.00	0.02	0.004	O	|	|	|	|	0.06
31.917	0.00	0.02	0.004	O	|	|	|	|	0.05
32.000	0.00	0.02	0.004	O	|	|	|	|	0.05
32.083	0.00	0.02	0.004	O	|	|	|	|	0.05
32.167	0.00	0.02	0.004	O	|	|	|	|	0.05
32.250	0.00	0.02	0.004	O	|	|	|	|	0.05
32.333	0.00	0.02	0.004	O	|	|	|	|	0.05
32.417	0.00	0.02	0.003	O	|	|	|	|	0.04
32.500	0.00	0.02	0.003	O	|	|	|	|	0.04
32.583	0.00	0.02	0.003	O	|	|	|	|	0.04
32.667	0.00	0.02	0.003	O	|	|	|	|	0.04
32.750	0.00	0.02	0.003	O	|	|	|	|	0.04
32.833	0.00	0.01	0.003	O	|	|	|	|	0.04
32.917	0.00	0.01	0.003	O	|	|	|	|	0.04
33.000	0.00	0.01	0.003	O	|	|	|	|	0.03
33.083	0.00	0.01	0.003	O	|	|	|	|	0.03
33.167	0.00	0.01	0.002	O	|	|	|	|	0.03
33.250	0.00	0.01	0.002	O	|	|	|	|	0.03
33.333	0.00	0.01	0.002	O	|	|	|	|	0.03
33.417	0.00	0.01	0.002	O	|	|	|	|	0.03
33.500	0.00	0.01	0.002	O	|	|	|	|	0.03
33.583	0.00	0.01	0.002	O	|	|	|	|	0.03
33.667	0.00	0.01	0.002	O	|	|	|	|	0.03
33.750	0.00	0.01	0.002	O	|	|	|	|	0.02
33.833	0.00	0.01	0.002	O	|	|	|	|	0.02
33.917	0.00	0.01	0.002	O	|	|	|	|	0.02
34.000	0.00	0.01	0.002	O	|	|	|	|	0.02
34.083	0.00	0.01	0.002	O	|	|	|	|	0.02
34.167	0.00	0.01	0.002	O	|	|	|	|	0.02
34.250	0.00	0.01	0.002	O	|	|	|	|	0.02
34.333	0.00	0.01	0.002	O	|	|	|	|	0.02
34.417	0.00	0.01	0.001	O	|	|	|	|	0.02
34.500	0.00	0.01	0.001	O	|	|	|	|	0.02
34.583	0.00	0.01	0.001	O	|	|	|	|	0.02
34.667	0.00	0.01	0.001	O	|	|	|	|	0.02
34.750	0.00	0.01	0.001	O	|	|	|	|	0.02
34.833	0.00	0.01	0.001	O	|	|	|	|	0.02
34.917	0.00	0.01	0.001	O	|	|	|	|	0.02
35.000	0.00	0.01	0.001	O	|	|	|	|	0.01
35.083	0.00	0.01	0.001	O	|	|	|	|	0.01
35.167	0.00	0.01	0.001	O	|	|	|	|	0.01
35.250	0.00	0.01	0.001	O	|	|	|	|	0.01
35.333	0.00	0.01	0.001	O	|	|	|	|	0.01
35.417	0.00	0.00	0.001	O	|	|	|	|	0.01
35.500	0.00	0.00	0.001	O	|	|	|	|	0.01
35.583	0.00	0.00	0.001	O	|	|	|	|	0.01
35.667	0.00	0.00	0.001	O	|	|	|	|	0.01
35.750	0.00	0.00	0.001	O	|	|	|	|	0.01
35.833	0.00	0.00	0.001	O	|	|	|	|	0.01
35.917	0.00	0.00	0.001	O	|	|	|	|	0.01
36.000	0.00	0.00	0.001	O	|	|	|	|	0.01

36.083	0.00	0.00	0.001	O	|	|	|	|	0.01
36.167	0.00	0.00	0.001	O	|	|	|	|	0.01
36.250	0.00	0.00	0.001	O	|	|	|	|	0.01
36.333	0.00	0.00	0.001	O	|	|	|	|	0.01
36.417	0.00	0.00	0.001	O	|	|	|	|	0.01
36.500	0.00	0.00	0.001	O	|	|	|	|	0.01
36.583	0.00	0.00	0.001	O	|	|	|	|	0.01
36.667	0.00	0.00	0.001	O	|	|	|	|	0.01
36.750	0.00	0.00	0.001	O	|	|	|	|	0.01
36.833	0.00	0.00	0.001	O	|	|	|	|	0.01
36.917	0.00	0.00	0.000	O	|	|	|	|	0.01
37.000	0.00	0.00	0.000	O	|	|	|	|	0.01
37.083	0.00	0.00	0.000	O	|	|	|	|	0.01
37.167	0.00	0.00	0.000	O	|	|	|	|	0.01
37.250	0.00	0.00	0.000	O	|	|	|	|	0.01
37.333	0.00	0.00	0.000	O	|	|	|	|	0.01
37.417	0.00	0.00	0.000	O	|	|	|	|	0.01
37.500	0.00	0.00	0.000	O	|	|	|	|	0.01
37.583	0.00	0.00	0.000	O	|	|	|	|	0.00
37.667	0.00	0.00	0.000	O	|	|	|	|	0.00
37.750	0.00	0.00	0.000	O	|	|	|	|	0.00
37.833	0.00	0.00	0.000	O	|	|	|	|	0.00
37.917	0.00	0.00	0.000	O	|	|	|	|	0.00
38.000	0.00	0.00	0.000	O	|	|	|	|	0.00
38.083	0.00	0.00	0.000	O	|	|	|	|	0.00
38.167	0.00	0.00	0.000	O	|	|	|	|	0.00
38.250	0.00	0.00	0.000	O	|	|	|	|	0.00
38.333	0.00	0.00	0.000	O	|	|	|	|	0.00
38.417	0.00	0.00	0.000	O	|	|	|	|	0.00
38.500	0.00	0.00	0.000	O	|	|	|	|	0.00
38.583	0.00	0.00	0.000	O	|	|	|	|	0.00
38.667	0.00	0.00	0.000	O	|	|	|	|	0.00
38.750	0.00	0.00	0.000	O	|	|	|	|	0.00
38.833	0.00	0.00	0.000	O	|	|	|	|	0.00
38.917	0.00	0.00	0.000	O	|	|	|	|	0.00
39.000	0.00	0.00	0.000	O	|	|	|	|	0.00
39.083	0.00	0.00	0.000	O	|	|	|	|	0.00
39.167	0.00	0.00	0.000	O	|	|	|	|	0.00

**********HYDROGRAPH DATA**********

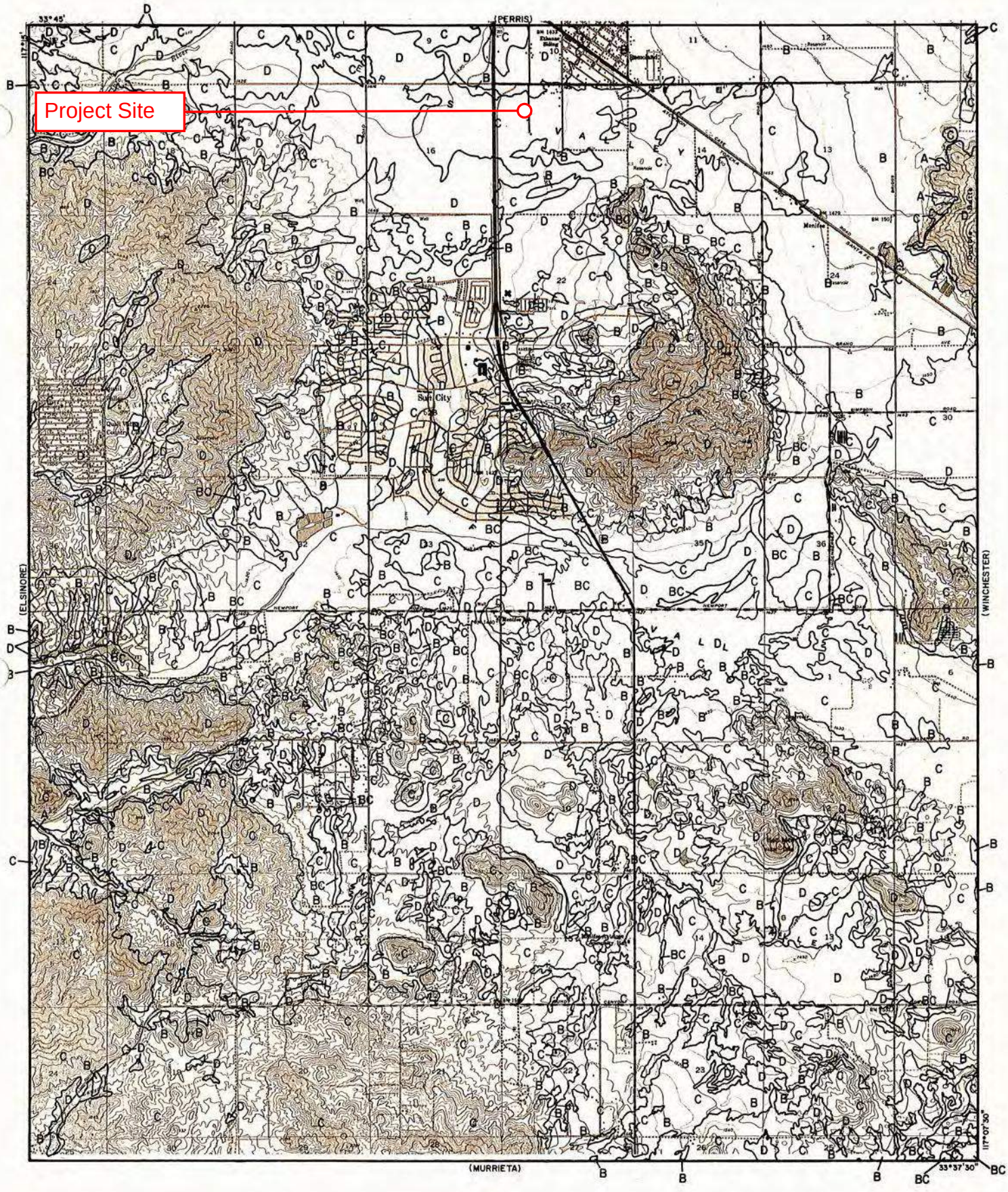
Number of intervals = 470
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 30.354 (CFS)
Total volume = 1.452 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

Appendix E
Soil Group Map and Isohyetal Map



LEGEND

SOILS GROUP BOUNDARY

A SOILS GROUP DESIGNATION

RCFC & WCD

HYDROLOGY MANUAL

0 FEET 5000

HYDROLOGIC SOILS GROUP MAP FOR ROMOLAND

PLATE C-1.42

NOAA Atlas 14, Volume 6, Version 2
Location name: Menifee, California, USA*
Latitude: 33.7399°, Longitude: -117.1814°
Elevation: 1431 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.086 (0.072-0.104)	0.124 (0.104-0.150)	0.176 (0.147-0.213)	0.220 (0.182-0.269)	0.283 (0.226-0.359)	0.334 (0.261-0.433)	0.389 (0.296-0.516)	0.447 (0.330-0.611)	0.530 (0.375-0.758)	0.599 (0.408-0.886)
10-min	0.123 (0.103-0.149)	0.178 (0.148-0.215)	0.252 (0.210-0.305)	0.315 (0.261-0.386)	0.406 (0.324-0.514)	0.479 (0.374-0.621)	0.557 (0.424-0.740)	0.641 (0.473-0.876)	0.760 (0.538-1.09)	0.858 (0.585-1.27)
15-min	0.149 (0.125-0.180)	0.215 (0.180-0.259)	0.305 (0.254-0.369)	0.381 (0.315-0.466)	0.491 (0.392-0.622)	0.580 (0.453-0.750)	0.674 (0.513-0.895)	0.775 (0.573-1.06)	0.920 (0.650-1.31)	1.04 (0.708-1.54)
30-min	0.243 (0.203-0.293)	0.349 (0.292-0.422)	0.496 (0.413-0.601)	0.621 (0.513-0.759)	0.799 (0.638-1.01)	0.944 (0.737-1.22)	1.10 (0.834-1.46)	1.26 (0.932-1.72)	1.50 (1.06-2.14)	1.69 (1.15-2.50)
60-min	0.352 (0.295-0.425)	0.506 (0.423-0.612)	0.718 (0.599-0.871)	0.899 (0.743-1.10)	1.16 (0.924-1.47)	1.37 (1.07-1.77)	1.59 (1.21-2.11)	1.83 (1.35-2.50)	2.17 (1.53-3.10)	2.45 (1.67-3.62)
2-hr	0.522 (0.437-0.630)	0.709 (0.593-0.856)	0.961 (0.801-1.16)	1.17 (0.969-1.43)	1.47 (1.17-1.86)	1.70 (1.33-2.20)	1.95 (1.48-2.58)	2.20 (1.63-3.02)	2.56 (1.81-3.66)	2.85 (1.95-4.23)
3-hr	0.640 (0.536-0.772)	0.852 (0.712-1.03)	1.14 (0.947-1.38)	1.37 (1.13-1.68)	1.70 (1.36-2.15)	1.96 (1.53-2.53)	2.22 (1.69-2.96)	2.51 (1.85-3.43)	2.90 (2.05-4.14)	3.20 (2.18-4.74)
6-hr	0.904 (0.756-1.09)	1.18 (0.988-1.43)	1.55 (1.29-1.88)	1.86 (1.54-2.27)	2.28 (1.82-2.88)	2.61 (2.03-3.37)	2.94 (2.24-3.91)	3.30 (2.43-4.51)	3.78 (2.67-5.40)	4.16 (2.84-6.16)
12-hr	1.19 (0.997-1.44)	1.56 (1.30-1.88)	2.05 (1.70-2.48)	2.45 (2.02-2.99)	3.01 (2.40-3.81)	3.44 (2.69-4.46)	3.90 (2.96-5.17)	4.37 (3.23-5.97)	5.02 (3.55-7.16)	5.53 (3.77-8.19)
24-hr	1.54 (1.37-1.78)	2.05 (1.81-2.36)	2.72 (2.40-3.15)	3.28 (2.87-3.83)	4.07 (3.44-4.90)	4.69 (3.89-5.76)	5.33 (4.32-6.71)	6.01 (4.74-7.78)	6.96 (5.27-9.37)	7.71 (5.65-10.7)
2-day	1.82 (1.61-2.10)	2.46 (2.17-2.84)	3.33 (2.93-3.85)	4.06 (3.54-4.74)	5.08 (4.30-6.13)	5.91 (4.90-7.27)	6.77 (5.48-8.52)	7.68 (6.06-9.94)	8.97 (6.80-12.1)	10.0 (7.33-13.9)
3-day	1.94 (1.72-2.24)	2.66 (2.35-3.07)	3.64 (3.20-4.21)	4.47 (3.91-5.22)	5.65 (4.78-6.81)	6.60 (5.48-8.12)	7.60 (6.16-9.57)	8.67 (6.84-11.2)	10.2 (7.72-13.7)	11.4 (8.37-15.9)
4-day	2.08 (1.84-2.40)	2.88 (2.55-3.33)	3.99 (3.51-4.62)	4.92 (4.30-5.75)	6.26 (5.30-7.55)	7.34 (6.09-9.03)	8.49 (6.88-10.7)	9.72 (7.66-12.6)	11.5 (8.69-15.4)	12.9 (9.45-18.0)
7-day	2.34 (2.07-2.70)	3.31 (2.93-3.83)	4.66 (4.10-5.40)	5.82 (5.08-6.79)	7.48 (6.34-9.02)	8.84 (7.33-10.9)	10.3 (8.34-13.0)	11.9 (9.35-15.3)	14.1 (10.7-19.0)	16.0 (11.7-22.2)
10-day	2.46 (2.18-2.84)	3.53 (3.12-4.08)	5.02 (4.42-5.81)	6.30 (5.51-7.36)	8.16 (6.91-9.84)	9.69 (8.04-11.9)	11.3 (9.18-14.3)	13.1 (10.3-17.0)	15.7 (11.9-21.1)	17.8 (13.1-24.8)
20-day	2.89 (2.56-3.33)	4.21 (3.72-4.86)	6.08 (5.36-7.04)	7.72 (6.75-9.02)	10.1 (8.58-12.2)	12.1 (10.1-14.9)	14.3 (11.6-18.0)	16.7 (13.2-21.6)	20.2 (15.3-27.2)	23.2 (17.0-32.3)
30-day	3.45 (3.05-3.98)	5.02 (4.43-5.80)	7.28 (6.41-8.43)	9.27 (8.10-10.8)	12.2 (10.4-14.7)	14.7 (12.2-18.1)	17.4 (14.1-22.0)	20.5 (16.1-26.5)	24.9 (18.9-33.6)	28.7 (21.1-40.0)
45-day	4.03 (3.56-4.65)	5.80 (5.13-6.71)	8.38 (7.38-9.70)	10.7 (9.33-12.5)	14.1 (12.0-17.0)	17.1 (14.1-21.0)	20.3 (16.4-25.6)	23.9 (18.9-31.0)	29.4 (22.2-39.5)	34.0 (24.9-47.4)
60-day	4.70 (4.16-5.42)	6.65 (5.88-7.69)	9.52 (8.38-11.0)	12.1 (10.6-14.1)	16.0 (13.5-19.3)	19.3 (16.0-23.8)	23.1 (18.7-29.0)	27.3 (21.5-35.3)	33.6 (25.5-45.3)	39.1 (28.6-54.4)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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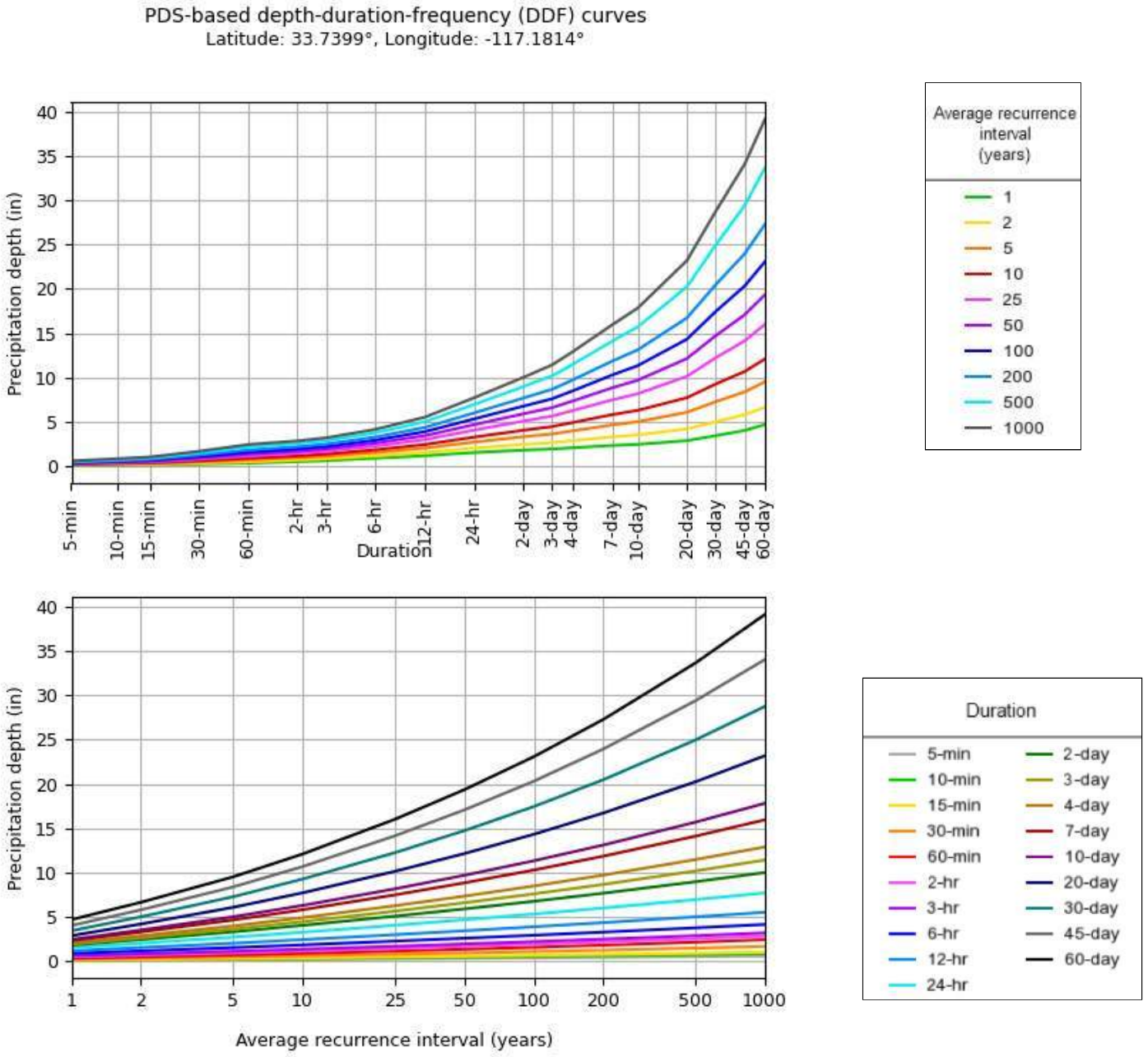
PF graphical



NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Thu Aug 17 22:03:49 2023

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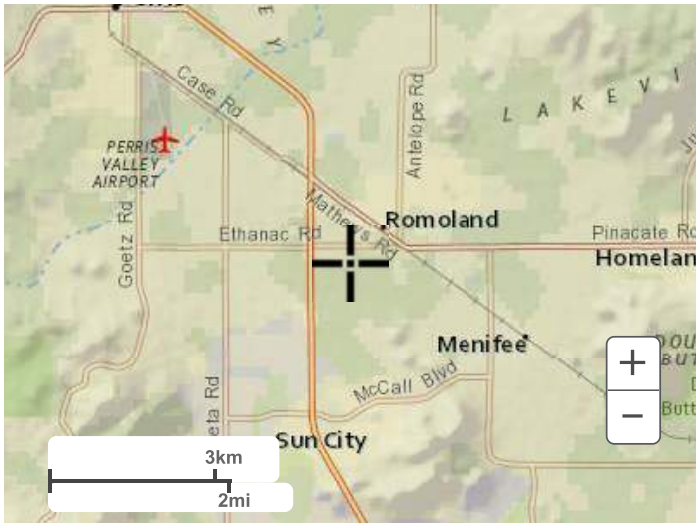
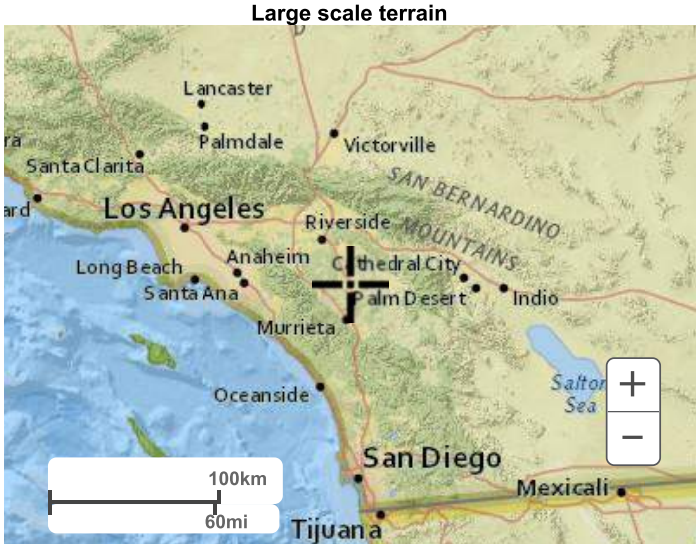
Maps & aerials

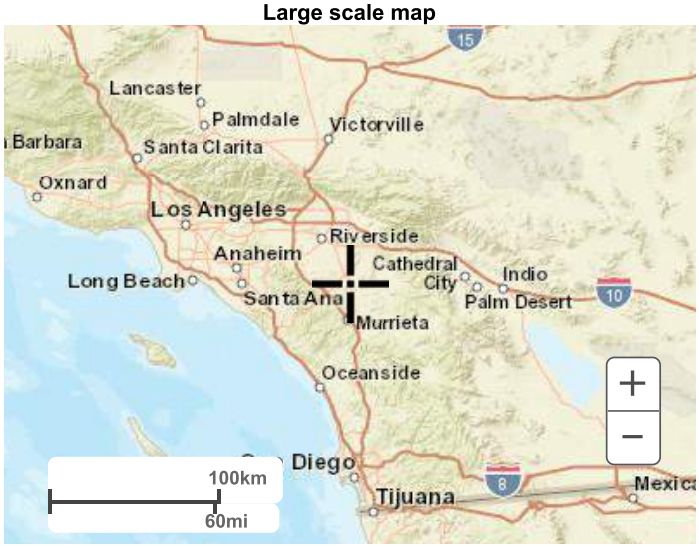
Small scale terrain



Large scale terrain



Large scale map



Large scale aerial

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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

Appendix F
Reference Materials

ATTACHMENT NO. 2
PROJECT PLANS & EXHIBITS
(October 19, 2022 City Council)

Exhibit A = Site Plan
Exhibit B = Elevations
Exhibit C = Floor Plans
Exhibit G = Conceptual Grading
Exhibit L = Landscaping
Exhibit M = Color & Materials Board
Exhibit P = Photometric Plan
Exhibit R = Renderings
Exhibit T = Tentative Parcel Map

Planner: Brent Hamilton

CITY OF MENIFEE, COUNTY OF RIVERSIDE
CORE 5 - MENIFEE COMMERCE CENTER
PLOT PLAN NO. 2019-005

DEVELOPER:
COMPANY: CORE 5 INDUSTRIAL PARTNERS, LLC
CONTACT: JON KELLY
ADDRESS: 300 SPECTRUM CENTER DR, SUITE 880 IRVINE, CA 92618
PHONE: (949) 467-3281
EMAIL: JKELLY@C5IP.COM

ENGINEER:
COMPANY: ALBERT A. WEBB ASSOCIATES
CONTACT: SARAH KOWALSKI
ADDRESS: 3788 MCCRAY STREET, RIVERSIDE, CA 92506
PHONE: (951) 686-1070
EMAIL: SARAH.KOWALSKI@WEBBASSOCIATES.COM

TOPOGRAPHY:
COMPANY: INLAND AERIAL SURVEY, INC.
ADDRESS: 1111 ARLINGTON AVE, SUITE A RIVERSIDE, CA 92503
PHONE: (951) 687-4252
DATED: NOVEMBER 20, 2020

ARCHITECT:
COMPANY: HPA ARCHITECTS
CONTACT: STEVE HONG
ADDRESS: 18081 BARDEEN AVE, SUITE 100 IRVINE, CA 92612
PHONE: (949) 863-1770
EMAIL: STEVE@HPARCH5.COM

A.P.N.:
331-110-027, 331-110-035, 331-110-041, 331-140-010, 331-140-018, 331-140-021, 331-140-025

PROPERTY OWNERS:

APN: 331-110-027
MOTTE TOWN CENTER ONE
41371 KALMIA ST, SUITE 200
MURRIETA, CA 92562

APN: 331-110-035
JOHN V. MOTTE & EVELYN E. MOTTE
445 SOUTH D ST
PERRIS, CA 92570

APN: 331-110-041 & 331-140-025
MOTTE TOWNE CENTER
445 SOUTH D ST
PERRIS, CA 92570

APN: 331-140-010
MOTE TOWN CENTER ONE
41391 KALMIA ST, SUITE 200
MURRIETA, CA 92562

APN: 331-140-018
KARLAN CHAMBERLIN & BETH RODSON CHAMBERLIN
26315 DAWSON RD
SUN CITY, CA 92585

APN: 331-140-021
TRACY FRIZELLE
15635 VISTA WAY, #100
LAKE ELSINORE, CA 92532

EASEMENT NOTES

1. AN EASEMENT SHOWN OR DEDICATED ON THE MAP OF TRUMBLE FARMS RECORDED FEBRUARY 1924 AND ON FILE IN BOOK 11, PAGE 38, OF TRACT MAPS, FOR STREET AND PUBLIC UTILITY AND INCIDENTAL PURPOSES.
   THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED RESOLUTION NO. 84-165 ACCEPTING OFFERS OF DEDICATIONS FOR PUBLIC ROADS (DAWSON ROAD) RECORDED JUNE 8, 1984 AS INSTRUMENT NO. 187659 OF OFFICIAL RECORDS.
   THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED CERTIFICATE OF ACCEPTANCE (PORTION OF TRUMBLE ROAD) RECORDED OCTOBER 5, 2015 AS INSTRUMENT NO. 2015-0434869 OF OFFICIAL RECORDS.
2. AN EASEMENT FOR PUBLIC HIGHWAY AND INCIDENTAL PURPOSES, RECORDED OCTOBER 2, 1924 IN BOOK 619 OF DEEDS, PAGE 11, IN FAVOR OF PUBLIC.
   AFFECTS: WEST 30 FEET OF PARCEL 1
3. AN EASEMENT FOR PIPELINES AND INCIDENTAL PURPOSES, RECORDED MARCH 31, 1926 IN BOOK 666 OF DEEDS, PAGE 585, IN FAVOR OF MILON J. TRUMBLE, ET UX.
   AFFECTS: A PORTION OF PARCEL 2 AND 4
   *THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.
4. AN EASEMENT FOR PUBLIC UTILITIES AND POWER LINES AND INCIDENTAL PURPOSES, RECORDED MAY 17, 1926 IN BOOK 673 OF DEEDS, PAGE 500, IN FAVOR OF SOUTHERN SIERRAS POWER COMPANY.
5. AN EASEMENT FOR PIPELINES, OR OPEN DITCHES AND DRILLING ADDITIONAL WELLS AND INCIDENTAL PURPOSES, RECORDED MAY 5, 1928 IN BOOK 760 OF DEEDS, PAGE 457 .
   IN FAVOR OF: ALEXANDER HURSH AND WILLIE LEE HURSH
   AFFECTS: A PORTION OF PARCEL 4
   *THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.

   AN EASEMENT FOR CONSTRUCTION MAINTENANCE AND OPERATION OF ELECTRIC POLE LINES AND ALL UNDERGROUND CONDUITS AND INCIDENTAL PURPOSES, RECORDED MAY 11, 1928 IN BOOK 766 OF DEEDS, PAGE 103, IN FAVOR OF SOUTHERN SIERRAS POWER COMPANY, A CORPORATION.
   *[BLANKET IN NATURE - CANNOT BE PLOTTED]
6. AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED MAY 18, 1928 IN BOOK 768 OF DEEDS, PAGE 66, IN FAVOR OF PACIFIC DEVELOPMENT COMPANY.
   *THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.

   AN EASEMENT FOR PIPELINES PUMPING EQUIPMENT ACCESS AND DITCHES AND INCIDENTAL PURPOSES, RECORDED JULY 19, 1933 AS BOOK 124, PAGE 50 OF OFFICIAL RECORDS, IN FAVOR OF WATSON WATER COMPANY.
   *THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.
   ¶[BLANKET IN NATURE - CANNOT BE PLOTTED - AFFECTS ALL LOTS IN MB 11/38]

   AN EASEMENT FOR RIGHT OF WAY FOR LAYING PIPE LINES FOR CONVEYANCE OF WATER AND INCIDENTAL PURPOSES, RECORDED JUNE 6, 1935 AS BOOK 236, PAGE 83 OF OFFICIAL RECORDS, IN FAVOR OF HOME FARM CORPORATION.
   *THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.
   [BLANKET IN NATURE - CANNOT BE PLOTTED - AFFECTS ALL LOTS IN MB 11/38]

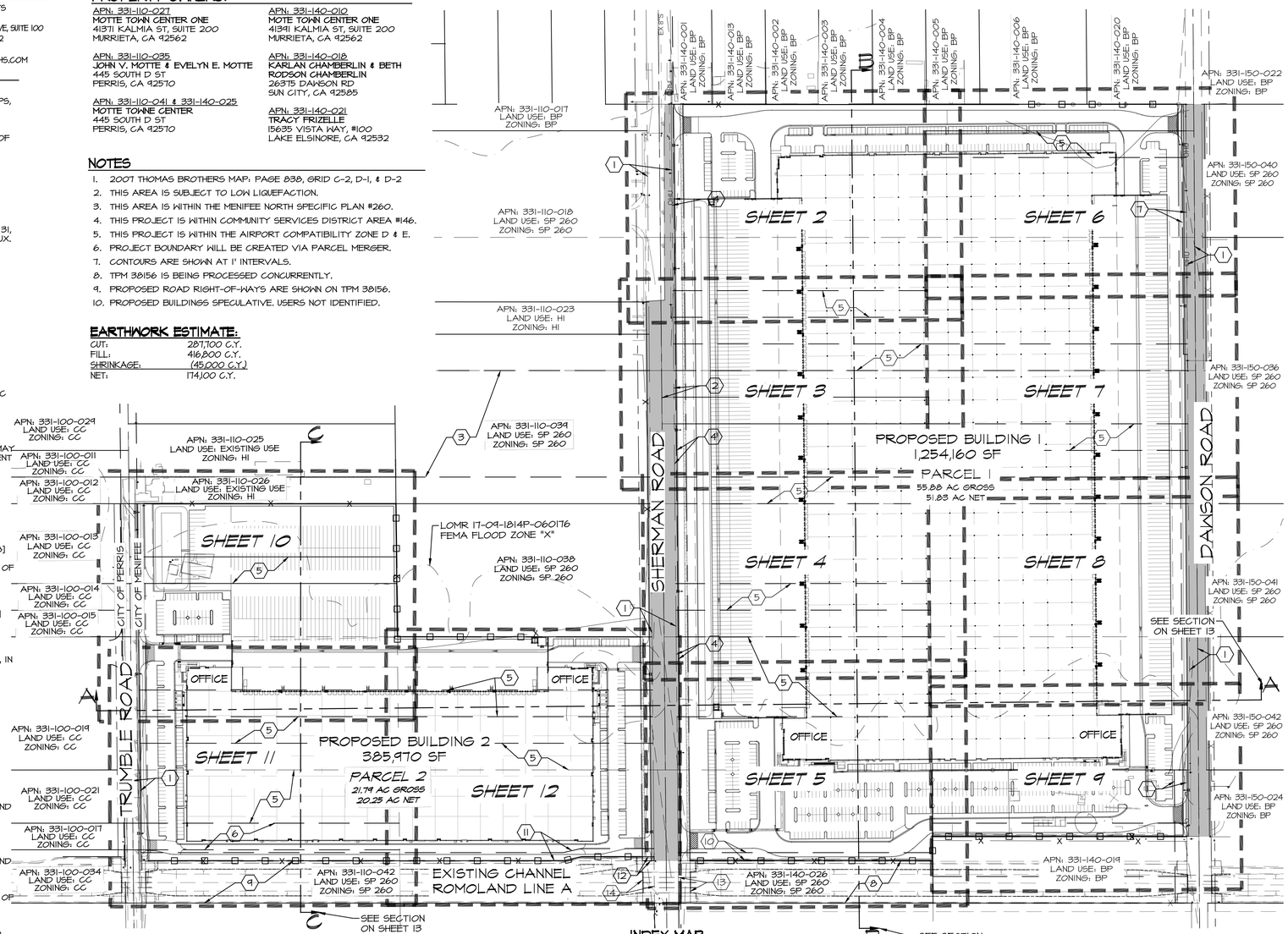
   AN EASEMENT FOR DITCHES, PIPELINES AND OTHER APPARATUS FOR THE DISTRIBUTION OF WATER FOR DOMESTIC AND IRRIGATION PURPOSES AND INCIDENTAL PURPOSES, RECORDED MARCH 4, 1964 AS INSTRUMENT NO. 27383 AND JANUARY 15, 1965 AS INSTRUMENT NO. 5629, BOTH OF OFFICIAL RECORDS, IN FAVOR OF TEMESCAL WATER COMPANY ITS SUCCESSORS AND ASSIGNS.
   *THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.
   [#1964-027383 & 1965-005624 ARE OUTSIDE OF THIS SECTION 15]
   [THEY SHOULD BE REMOVED FROM PTR]
7. AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED SEPTEMBER 14, 2000 AS INSTRUMENT NO. 361298 OF OFFICIAL RECORDS, IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION.
   RESTRICTIONS ON THE USE, BY THE OWNERS OF SAID LAND, OF THE EASEMENT AREA, AS SET OUT IN SAID DOCUMENT.
8. AN OFFER OF DEDICATION FOR STORM DRAIN FOR FLOOD CONTROL AND DRAINAGE PURPOSES AND INCIDENTAL PURPOSES, RECORDED SEPTEMBER 2, 2004 AS INSTRUMENT NO. 2004-0698581 OF OFFICIAL RECORDS, TO THE COUNTY OF RIVERSIDE ON BEHALF OF RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT.
9. AN OFFER OF DEDICATION FOR STORM DRAIN FOR FLOOD CONTROL AND DRAINAGE PURPOSES AND INCIDENTAL PURPOSES, RECORDED SEPTEMBER 2, 2004 AS INSTRUMENT NO. 2004-0698582 OF OFFICIAL RECORDS, TO THE COUNTY OF RIVERSIDE ON BEHALF OF RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT.
10. AN EASEMENT FOR TEMPORARY CONSTRUCTION EASEMENT AND INCIDENTAL PURPOSES, RECORDED FEBRUARY 16, 2007 AS INSTRUMENT NO. 2007-0114245 OF OFFICIAL RECORDS, IN FAVOR OF HOMELAND/ROMOLAND ADP INC., A DELAWARE CORPORATION.
    THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED ASSIGNMENT OF EASEMENT RECORDED NOVEMBER 14, 2014 AS INSTRUMENT NO. 2014-0431238 OF OFFICIAL RECORDS.
11. AN EASEMENT FOR TEMPORARY CONSTRUCTION EASEMENT AND INCIDENTAL PURPOSES, RECORDED FEBRUARY 16, 2007 AS INSTRUMENT NO. 2007-0114246 OF OFFICIAL RECORDS, IN FAVOR OF HOMELAND/ROMOLAND ADP INC., A DELAWARE CORPORATION.
    THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED ASSIGNMENT OF EASEMENT RECORDED NOVEMBER 14, 2014 AS INSTRUMENT NO. 2014-0431237 OF OFFICIAL RECORDS.
12. AN EASEMENT FOR PUBLIC ROAD AND DRAINAGE PURPOSES, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES PURPOSES AND INCIDENTAL PURPOSES, RECORDED MAY 1, 2007 AS INSTRUMENT NO. 2007-0290073 OF OFFICIAL RECORDS, IN FAVOR OF THE COUNTY OF RIVERSIDE.
13. AN EASEMENT FOR PUBLIC ROAD AND DRAINAGE PURPOSES, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES PURPOSES AND INCIDENTAL PURPOSES, RECORDED MAY 1, 2007 AS INSTRUMENT NO. 2007-0290074 OF OFFICIAL RECORDS, IN FAVOR OF THE COUNTY OF RIVERSIDE.
14. AN EASEMENT FOR PUBLIC ROAD AND DRAINAGE PURPOSES, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES PURPOSES AND INCIDENTAL PURPOSES, RECORDED MAY 30, 2007 AS INSTRUMENT NO. 2007-0352042 OF OFFICIAL RECORDS, IN FAVOR OF THE COUNTY OF RIVERSIDE.
15. AN EASEMENT FOR PUBLIC ROAD AND DRAINAGE PURPOSES, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES PURPOSES AND INCIDENTAL PURPOSES, RECORDED MAY 30, 2007 AS INSTRUMENT NO. 2007-0352043 OF OFFICIAL RECORDS, IN FAVOR OF THE COUNTY OF RIVERSIDE.

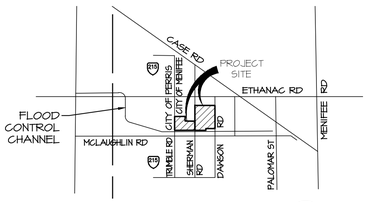
NOTES

1. 2007 THOMAS BROTHERS MAP: PAGE 838, GRID C-2, D-1, & D-2
2. THIS AREA IS SUBJECT TO LOW LIQUEFACTION.
3. THIS AREA IS WITHIN THE MENIFEE NORTH SPECIFIC PLAN #260.
4. THIS PROJECT IS WITHIN COMMUNITY SERVICES DISTRICT AREA #146.
5. THIS PROJECT IS WITHIN THE AIRPORT COMPATIBILITY ZONE D & E.
6. PROJECT BOUNDARY WILL BE CREATED VIA PARCEL MERGER.
7. CONTOURS ARE SHOWN AT 1' INTERVALS.
8. TPM 38156 IS BEING PROCESSED CONCURRENTLY.
9. PROPOSED ROAD RIGHT-OF-WAYS ARE SHOWN ON TPM 38156.
10. PROPOSED BUILDINGS SPECULATIVE. USERS NOT IDENTIFIED.

EARTHWORK ESTIMATE:

CUT:	287,700 C.Y.
FILL:	416,800 C.Y.
SHRINKAGE:	(45,000 C.Y.)
NET:	174,100 C.Y.





VICINITY MAP
NOT TO SCALE
SEC. 15, T5S, R3W, SBM

PROJECT DATA

	BUILDING 1	BUILDING 2	TOTAL
BUILDING AREA			
WAREHOUSE	1,095,440 S.F.	375,970 S.F.	1,471,410 S.F.
MEZZANINE	144,220 S.F.		144,220 S.F.
OFFICE	14,500 S.F.	10,000 S.F.	24,500 S.F.
TOTAL AREA	1,254,160 S.F.	385,970 S.F.	1,640,130 S.F.
LOT COVERAGE:	55.5%	43.8%	52.2%
PARKING REQUIREMENTS			
OFFICE @ 1/250 S.F.	59	40	98 STALLS
WAREHOUSE @ 1/2,000 S.F.	621	188	809 STALLS
TOTAL PARKING REQUIRED	679	228	907 STALLS
ADA PARKING REQUIRED	14	8	22
PARKING PROVIDED			
STANDARD (9'X18')	670	224	894 STALLS
ADA (9'X18')	9	8	17 STALLS
TOTAL PARKING PROVIDED	679	232	911 STALLS
TRAILER (10'X55')	369	154	523 STALLS
LANDSCAPE REQUIRED	TBD	TBD	TBD

ACREAGE

	PARCEL 1		PARCEL 2		TOTAL
GROSS SITE AREA:	55.88 AC.		21.79 AC.		77.67 AC.
TRUMBLE ROAD:	0.00 AC.	DEDICATION	0.75 AC.	DEDICATION	0.75 AC.
SHERMAN ROAD:	2.54 AC.	DEDICATION	0.74 AC.	DEDICATION	3.28 AC.
DAWSON ROAD:	1.51 AC.	DEDICATION	0.00 AC.	DEDICATION	1.51 AC.
NET SITE AREA:	51.83 AC.		20.29 AC.		72.12 AC.

LAND USE/ZONING

EXISTING ZONING:	HEAVY INDUSTRIAL / SP 260 / BUSINESS PARK
PROPOSED ZONING:	SP 260
EXISTING GENERAL PLAN USE:	HEAVY INDUSTRIAL / SP 260 / BUSINESS PARK
PROPOSED GENERAL PLAN USE:	SP 260
EXISTING LAND USE:	VACANT / RESIDENTIAL
PROPOSED LAND USE:	WAREHOUSE DISTRIBUTION

UTILITY COMPANIES:

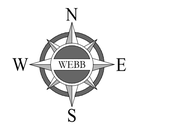
WATER:	EASTERN MUNICIPAL WATER DISTRICT
SEWER:	EASTERN MUNICIPAL WATER DISTRICT
ELECTRIC:	SOUTHERN CALIFORNIA EDISON COMPANY
GAS:	SOUTHERN CALIFORNIA GAS COMPANY
TELEPHONE/CABLE:	FRONTIER COMMUNICATIONS

SCHOOL DISTRICT

ROMOLAND & PERRIS UNION HIGH SCHOOL DISTRICT

VEHICLE AND TRUCK ROUTES

TRUCK ROUTES FOR THIS PROJECT ARE VIA ETHANAC ROAD THROUGH SHERMAN RD OR DAWSON RD. PASSENGER VEHICLES CAN ACCESS THE SITE VIA MCCALL BLVD THROUGH TRUMBLE RD OR SHERMAN RD. ALSO VIA ETHANAC ROAD THROUGH SHERMAN RD OR DAWSON RD. FOR ADDITIONAL INFORMATION REGARDING VEHICLE & TRUCK ROUTE INFORMATION PLEASE REFER TO TRAFFIC STUDY FOR THIS PROJECT.



1" = 150'
150 0 150 300 450

LEGAL DESCRIPTION:

PARCEL 1 (APN 331-140-010):
ALL THAT PORTION OF LOT SIXTY-EIGHT (68), AS SHOWN ON MAPS OF TRUMBLE FARMS ON FILE IN MAP BOOK 11, AT PAGE 38 THEREOF, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID LOT 68, SAID POINT BEARS SOUTH 0° 11' 15" EAST A DISTANCE OF 66 FEET FROM THE NORTHEAST CORNER OF SAID LOT 68; THENCE NORTH 89° 43' WEST A DISTANCE OF 661.37 FEET; THENCE SOUTH 0° 15' EAST A DISTANCE OF 66 FEET; THENCE SOUTH 89° 43' EAST A DISTANCE OF 661.31 FEET TO THE EAST BOUNDARY OF SAID LOT 68; THENCE NORTH 0° 11' 15" WEST ALONG THE EAST BOUNDARY OF SAID LOT 68 A DISTANCE OF 66 FEET TO THE POINT OF BEGINNING.

PARCEL 2 (331-110-041-6 & 331-110-035):
LOTS 37, 38, 39, 58, 59, OF TRUMBLE FARMS, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 11, PAGE 38, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

EXCEPTING THEREFROM THE NORTH 66.00 FEET OF THE SOUTH 198.00 FEET OF LOT 37. ALSO EXCEPTING THEREFROM THAT PORTION CONVEYED TO RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT AS SHOWN IN DOCUMENT RECORDED SEPTEMBER 12, 2014 INSTRUMENT NUMBERS 2014-0347107 AND 2014-0347108, BOTH OF OFFICIAL RECORDS

PARCEL 3 (331-140-025):
LOTS 66, 67, 68, 69, 70, 71, 91, 92, 93, 94, AND 95 OF TRUMBLE FARMS, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 11, PAGE 38 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPT THE SOUTH 66.00 FEET OF THE NORTH 132.00 FEET OF LOT 68.

FURTHER EXCEPTING THEREFROM THAT PORTION CONVEYED TO RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT AS SHOWN IN DOCUMENT RECORDED SEPTEMBER 12, 2014 INSTRUMENT NUMBER 2014-0347109, OF OFFICIAL RECORDS.

PARCEL 4 (331-110-027):
THAT PORTION OF LOT 37 OF TRUMBLE FARMS, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 11, PAGE 38 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, BY METES AND BOUNDS, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EASTERLY LINE OF SAID LOT WHICH BEARS SOUTH 0° 18 MINUTES 43 SECONDS EAST, 132 FEET FROM THE NORTHEAST CORNER OF SAID LOT;

THENCE NORTH 89° 43 MINUTES WEST, 640.98 FEET TO THE WESTERLY LINE OF SAID LOT; THENCE SOUTH 0° 22 MINUTES, 30 SECONDS EAST ON THE WESTERLY LINE, 66 FEET; THENCE SOUTH 89° 43 MINUTES EAST, 640.91 FEET TO THE EASTERLY LINE OF SAID LOT, THENCE NORTH 0° 45 SECONDS WEST, 66 FEET TO THE POINT OF BEGINNING.

PURSUANT TO CERTIFICATE OF COMPLIANCE NO. 5540 RECORDED JANUARY 8, 2004 AS INSTRUMENT NO. 04-12423, OF OFFICIAL RECORDS.

APN: 331-140-018
THIS PROPERTY SURVEYED AND SHOWN HEREON IS THE SAME PROPERTY AS DESCRIBED IN EXHIBIT A OF FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT FOR TITLE INSURANCE ORDER NO. NCS-986347-AI-ATL WITH COMMITMENT DATE OF APRIL 09, 2021.

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL NO. 1, AS SHOWN ON PARCEL MAP NO. 12337, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 67, PAGE(S) 94 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

APN: 331-140-021
THIS PROPERTY SURVEYED AND SHOWN HEREON IS THE SAME PROPERTY AS DESCRIBED IN EXHIBIT A OF FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT FOR TITLE INSURANCE ORDER NO. NCS-986347-BI-ATL WITH COMMITMENT DATE OF APRIL 09, 2021.

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

THAT PORTION OF LOT NINETY-FIVE (95), AS SHOWN ON A MAP OF TRUMBLE FARMS ON FILE IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY, CALIFORNIA, IN BOOK 11, PAGE 38 OF MAPS, BY METES AND BOUNDS, BEGINNING AT THE NORTHWEST CORNER OF SAID LOT;

THENCE SOUTH 89° 43' EAST, 642.11 FEET TO THE NORTHEAST CORNER THEREOF;

THENCE SOUTH 0° 07' 30" EAST ON THE EASTERLY LINE OF SAID LOT, 66 FEET;

THENCE NORTH 89° 43' WEST 642.04 FEET TO THE WESTERLY LINE OF SAID LOT;

THENCE NORTH 0° 11' 15" WEST ON SAID WESTERLY LINE OF SAID LOT, 66 FEET TO THE POINT OF BEGINNING.

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE
CORE 5 - MENIFEE COMMERCE CENTER
PLOT PLAN NO. PP2019-005

SCALE: 1" = 150'	ALBERT A. WEBB ASSOCIATES	ENGINEERING CONSULTANTS 3788 McCRAY STREET RIVERSIDE CA. 92506 PH. (951) 686-1070 FAX (951) 788-1256	W.O. 21-0026
DATE: 4/1/22			SHEET |
DESIGNED: CV			OF 14 SHEETS
CHECKED:			DWG. NO.
PLN CK REF:			
F.B.			

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ATTACHMENT NO. 2
PROJECT PLANS & EXHIBITS
(October 19, 2022 City Council)

Exhibit A = Site Plan
Exhibit B = Elevations
Exhibit C = Floor Plans
Exhibit G = Conceptual Grading
Exhibit L = Landscaping
Exhibit M = Color & Materials Board
Exhibit P = Photometric Plan
Exhibit R = Renderings
Exhibit T = Tentative Parcel Map

Planner: Brett Hamilton

EX. PP TO BE REMOVED & WIRES TO BE UNDERGROUNDED (TY.P)
EX. PP PROTECT IN PLACE
EX. FENCE TO BE REMOVED & REPLACED WITH 6' HIGH SCREEN WALL
P/L N84°11'05"W 603.10'
APN: 331-140-001 LAND USE: BP ZONING: BP
APN: 331-140-013 LAND USE: BP ZONING: BP
APN: 331-140-002 LAND USE: BP ZONING: BP
APN: 331-140-003 LAND USE: BP ZONING: BP
APN: 331-140-004 LAND USE: BP ZONING: BP
APN: 331-140-005 LAND USE: BP ZONING: BP
APN: 331-110-017 LAND USE: BP ZONING: BP
EX. EP
EX. 12" WATER
EX. 10" ABANDONED WATER LINE
EX. R/W
PROP. STREET LIGHT (TYP.)
PROP. SIDEWALK
PROP. STORM DRAIN LINE A-1
EX. PP TO BE REMOVED & WIRES TO BE UNDERGROUNDED (TY.P)
EX. 12" WATER
SHERMAN ROAD
APN: 331-110-018 LAND USE: SP 260 ZONING: SP 260
PROP. R/W
APN: 331-110-023 LAND USE: HI ZONING: HI
EX. CURB & GUTTER
EX. EP
PROP. CURB & GUTTER
PROP. STREET LIGHT (TYP.)
EX. 12" WATER
EX. EP
EX. PP TO BE REMOVED & WIRES TO BE UNDERGROUNDED (TY.P)
EX. 10" ABANDONED WATER LINE
PROP. VALLEY GUTTER
45 AUTO STALLS
PROP. TRASH ENCLOSURE
PROP. GATE
PROP. VALLEY GUTTER
PROPOSED DETENTION BASIN TOP: 1424.0-1425.3 BOT.: 1424.0-1425.3
PROP. VALLEY GUTTER
244 TRAILER STALLS
GRADE BREAK
PROP. SCREEN WALL
PROP. STORM DRAIN
PROP. VALLEY GUTTER
144 AUTO STALLS
PROP. VALLEY GUTTER (TYP.)
RIDGE LINE
PROPOSED BUILDING 1
1,254,160 SF
FF=1438.0
SEE SHEET 3
SEE SHEET 6

LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED LANDSCAPE AREA
- PROPOSED DECORATIVE PAVEMENT
- ADA PATH OF TRAVEL
- SCREEN WALL
- TUBE STEEL FENCE
- GRADEBREAK/RIDGELINE
- FLOWLINE
- SD — STORM DRAIN
- (1475) — EXISTING CONTOURS
- 1475 — PROPOSED CONTOURS
- EX W — EXISTING WATER LINE
- EX SS — EXISTING SEWER LINE
- SD — EXISTING STORM DRAIN
- G — EXISITING GAS LINE
- E — EXSTING ELECTRICAL LINE

FF	FINISHED FLOOR
FG	FINISHED GROUND
FS	FINISHED SURFACE
FL	FLOW LINE
GB	GRADE BREAK
HP	HIGH POINT
INV	INVERT
LS	LANDSCAPE AREA
LP	LOW POINT
MAX	MAXIMUM
PL	PROPERTY LINE
R/W	RIGHT OF WAY
TYP	TYPICAL
D/W	DRIVEWAY
RL	RIDGELINE

N
W WEBB E
S

1" = 30'
30 0 30 60 90

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE
CORE 5 - MENIFEE COMMERCE CENTER
PLOT PLAN NO. PP2019-005

SCALE: 1" = 30'	ALBERT A. WEBB ASSOCIATES	W.O. 21-0026
DATE: 4/7/22	ENGINEERING CONSULTANTS 3788 McCRAY STREET RIVERSIDE CA. 92506 PH. (951) 686-1070 FAX (951) 788-1256	SHEET 2 OF 14 SHEETS
DESIGNED: CV		DWG. NO.
CHECKED:		
PLN CK REF:		
F.B.		

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Exhibit T = Tentative Parcel Map

Planner: Brett Hamilton

SEE SHEET 2

EX. 12" WATER
EX. EP
EX. PP TO BE REMOVED & WIRES TO BE UNDERGROUNDED (TY.P)
APN: 331-110-023
LAND USE: HI
ZONING: HI
EX. 10" ABANDONED WATER LINE
EX. R/W
30' 30'
PROP. SIDEWALK
PROP. STORM DRAIN LINE A-1
EX. 12" WATER
SHERMAN ROAD
APN: 331-110-039
LAND USE: SP 260
ZONING: SP 260
PROP. R/W
59' 59'
21' 38' 38' 21'
PROP. STREET LIGHT (TYP.)
PROP. CURB & GUTTER
EX. 12" WATER
PROP. STORM DRAIN
PROP. VALLEY GUTTER
PROP. SCREEN WALL
PROPOSED DETENTION BASIN
TOP: 1432.0
BOT: 1425.3
244 TRAILER STALLS
36'6" 45' TYP 55' TYP 70' 60'
10' TYP
GRADE BREAK
1.5%
1.0%
1.6%
PROPOSED BUILDING 1
1,254,160 SF
FF=1438.0
1500'

SEE SHEET 7

SEE SHEET 4

LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED LANDSCAPE AREA
- PROPOSED DECORATIVE PAVEMENT
- ADA PATH OF TRAVEL
- SCREEN WALL
- TUBE STEEL FENCE
- GRADEBREAK/RIDGELINE
- FLOWLINE
- SD — STORM DRAIN
- (1475) — EXISTING CONTOURS
- 1475 — PROPOSED CONTOURS
- EX W — EXISTING WATER LINE
- EX SS — EXISTING SEWER LINE
- SD — EXISTING STORM DRAIN
- G — EXISITING GAS LINE
- E — EXSTING ELECTRICAL LINE

FF	FINISHED FLOOR
FG	FINISHED GROUND
FS	FINISHED SURFACE
FL	FLOW LINE
GB	GRADE BREAK
HP	HIGH POINT
INV	INVERT
LS	LANDSCAPE AREA
LP	LOW POINT
MAX	MAXIMUM
PL	PROPERTY LINE
R/W	RIGHT OF WAY
TYP	TYPICAL
D/W	DRIVEWAY
RL	RIDGELINE

N
W WEBB E
S

1" = 30'
30 0 30 60 90

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE
CORE 5 - MENIFEE COMMERCE CENTER
PLOT PLAN NO. PP2019-005

SCALE: 1" = 30'	ALBERT A. WEBB ASSOCIATES	W.O. 21-0026
DATE: 4/1/22	ENGINEERING CONSULTANTS 3788 McCRAY STREET RIVERSIDE, CA. 92506 PH. (951) 686-1070 FAX (951) 788-1256	SHEET 3
DESIGNED: CV		OF 14 SHEETS
CHECKED:		DWG. NO.
PLN CK REF:		
F.B.		

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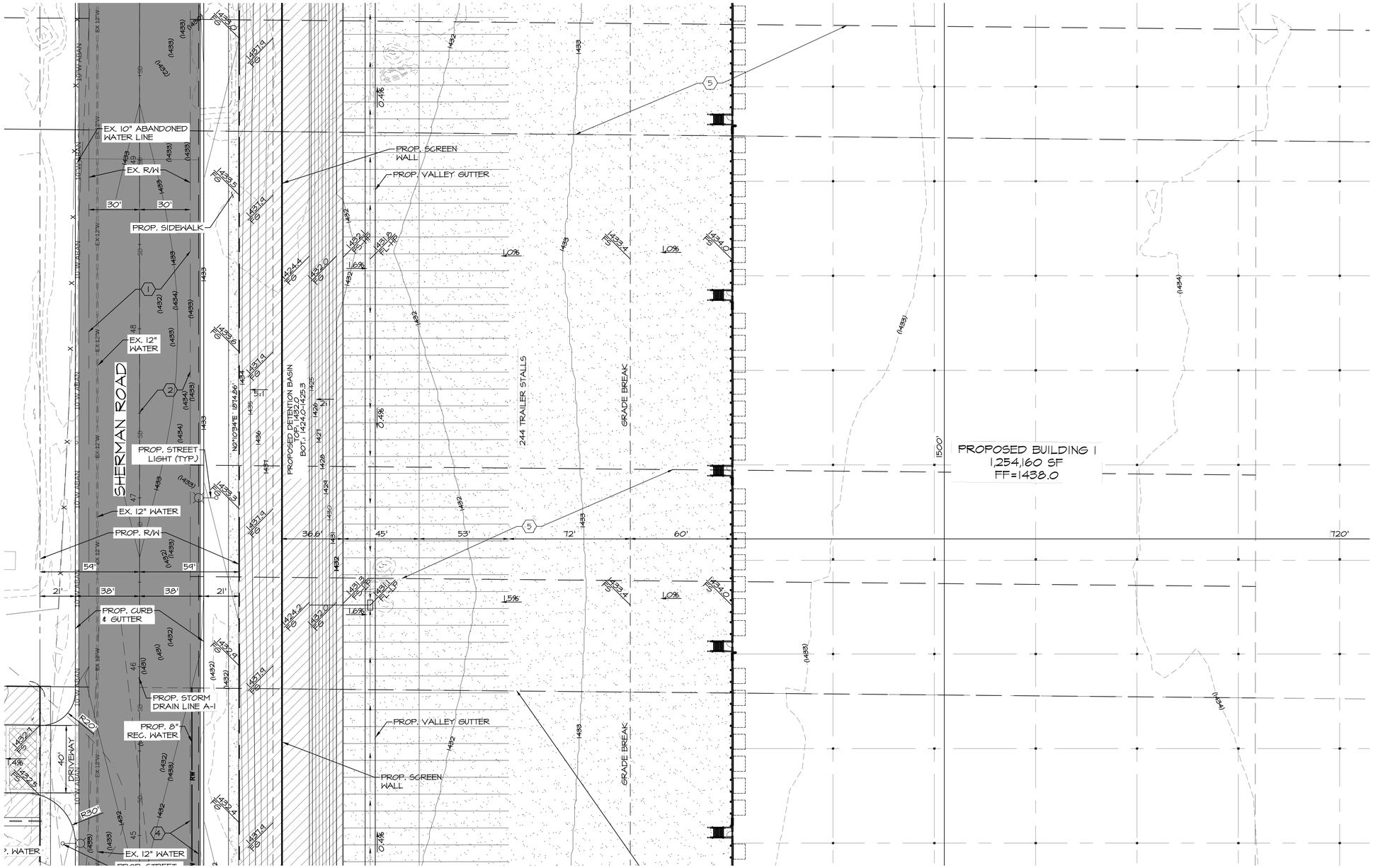
Planner: Brett Hamilton

SEE SHEET 3



SEE SHEET 5

SEE SHEET 8

LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED LANDSCAPE AREA
- PROPOSED DECORATIVE PAVEMENT
- ADA PATH OF TRAVEL
- SCREEN WALL
- TUBE STEEL FENCE
- GRADEBREAK/RIDGELINE
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LS	LANDSCAPE AREA
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MAX	MAXIMUM
PL	PROPERTY LINE
R/W	RIGHT OF WAY
TYP	TYPICAL
D/W	DRIVEWAY
RL	RIDGELINE

N
W WEBB E
S

1" = 30'
30 0 30 60 90

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE

CORE 5 - MENIFEE COMMERCE CENTER
PLOT PLAN NO. PP2019-005

SCALE: 1" = 30'	ALBERT A. WEBB ASSOCIATES	ENGINEERING CONSULTANTS 3788 McCRAY STREET RIVERSIDE CA. 92506 PH. (951) 686-1070 FAX (951) 788-1256	W.O. 21-0026
DATE: 4/1/22			SHEET 4
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Planner: Brett Hamilton

SEE SHEET 4

SEE SHEET 12

SEE SHEET 9

SHERMAN ROAD

EX. 12" WATER
PROP. STREET LIGHT (TYP.)
EX. 10" ABANDONED WATER LINE
EX. R/W
PROP. SIDEWALK
EX. 12" WATER
PROP. 8" REC. WATER
PROP. WQMP TREATMENT DEVICE
PROP. R/W
PROP. CURB & GUTTER
PROP. SEWER
PROP. STORM DRAIN LINE A-1
PROP. STREET LIGHT (TYP.)
EX. 12" WATER
DRIVEWAY
PROP. SEWER TO CONNECT TO EX. AT MCLAUGHLIN RD & SHERMAN RD INTERSECTION
SHERMAN RD & FLOOD CONTROL CHANNEL C/L INTERSECTION

PROP. VALLEY GUTTER
LOMR 17-09-1814P-060176 FEMA FLOOD ZONE "X"
PROP. SCREEN WALL
PROPOSED DETENTION BASIN TOP: 1432.0 BOT: 1424.0-1425.3
244 TRAILER STALLS
GRADE BREAK
PROP. TRASH ENCLOSURE
PROP. PUMP HOUSE
PROP. GATE
PROP. SCREEN WALL
OFFICE
PROPOSED BUILDING 1
1,254,160 SF
FF=1438.0
LOMR 17-09-1814P-060176 FEMA FLOOD ZONE "X"
PROP. EMPLOYEE BREAK AREA
PROP. STORM DRAIN
PROP. DIVERSION STRUCTURE
90 AUTO STALLS
PROP. BIKE RACKS
PROP. WATER
PROP. STORM DRAIN
PROP. WQMP LIFT STATION
343 AUTO STALLS
PROP. SEWER
ACCESSIBLE PATH
PROP. V-DITCH ALONG FENCE
EX. FENCE TO BE REMOVED
RIDGE LINE
COORDINATE WITH RCFC&WCD THE REPLACEMENT OF RCFC&WCD'S EXISTING CHAINLINK FENCE WITH A NEW TUBE STEEL FENCE
APN: 331-140-026
LAND USE: SP 260
ZONING: SP 260
EXISTING CHANNEL ROMOLAND LINE A

PROP. SEWER P.O.C.
EX. 18" SEWER
EX. 48" RECYCLED WATER
SHERMAN RD & MCLAUGHLIN C/L INTERSECTION

LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED LANDSCAPE AREA
- PROPOSED DECORATIVE PAVEMENT
- ADA PATH OF TRAVEL
- SCREEN WALL
- TUBE STEEL FENCE
- GRADEBREAK/RIDGELINE
- FLOWLINE
- SD STORM DRAIN
- (1475) EXISTING CONTOURS
- 1475 PROPOSED CONTOURS
- EX W EXISTING WATER LINE
- EX SS EXISTING SEWER LINE
- SD EXISTING STORM DRAIN
- G EXISITING GAS LINE
- E EXSTING ELECTRICAL LINE

FF	FINISHED FLOOR
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PL	PROPERTY LINE
R/W	RIGHT OF WAY
TYP	TYPICAL
D/W	DRIVEWAY
RL	RIDGELINE

N
W WEBB E
S

1" = 30'
30 0 30 60 90

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE

CORE 5 - MENIFEE COMMERCE CENTER
PLOT PLAN NO. PP2019-005

SCALE: 1" = 30'	ALBERT A. WEBB ASSOCIATES	ENGINEERING CONSULTANTS 3788 McCRAY STREET RIVERSIDE CA. 92506 PH. (951) 686-1070 FAX (951) 788-1256	W.O. 21-0026
DATE: 4/1/22			SHEET 5
DESIGNED: CV			OF 14 SHEETS
CHECKED:			
PLN CK REF:			DWG. NO.
F.B.			

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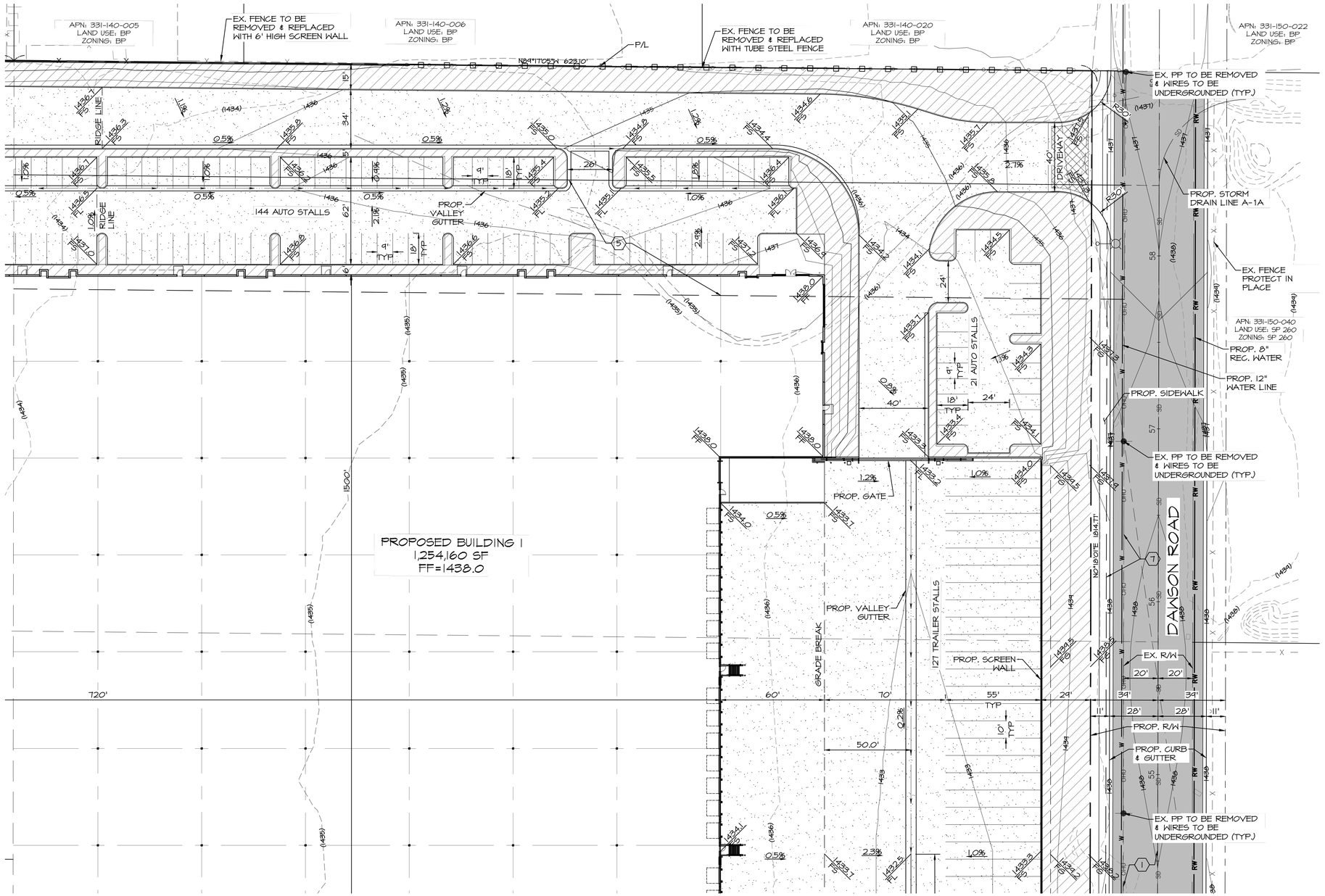
Planner: Brett Hamilton



LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED LANDSCAPE AREA
- PROPOSED DECORATIVE PAVEMENT
- ADA PATH OF TRAVEL
- SCREEN WALL
- TUBE STEEL FENCE
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- FLOWLINE
- SD — STORM DRAIN
- (1475) — EXISTING CONTOURS
- 1475 — PROPOSED CONTOURS
- EX W — EXISTING WATER LINE
- EX SS — EXISTING SEWER LINE
- SD — EXISTING STORM DRAIN
- G — EXISITING GAS LINE
- E — EXSTING ELECTRICAL LINE

FF	FINISHED FLOOR
FG	FINISHED GROUND
FS	FINISHED SURFACE
FL	FLOW LINE
GB	GRADE BREAK
HP	HIGH POINT
INV	INVERT
LS	LANDSCAPE AREA
LP	LOW POINT
MAX	MAXIMUM
PL	PROPERTY LINE
R/W	RIGHT OF WAY
TYP	TYPICAL
D/W	DRIVEWAY
RL	RIDGELINE

N
W WEBB E
S

1" = 30'
30 0 30 60 90

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE

CORE 5 - MENIFEE COMMERCE CENTER
PLOT PLAN NO. PP2019-005

SCALE:	1" = 30'
DATE:	4/1/22
DESIGNED:	CV
CHECKED:	
PLN CK REF:	
F.B.	

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET
RIVERSIDE, CA. 92506
PH. (951) 686-1070
FAX (951) 788-1256

W.O. 21-0026
SHEET 6
OF 14 SHEETS
DWG. NO.

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ATTACHMENT NO. 2
PROJECT PLANS & EXHIBITS
(October 19, 2022 City Council)

Exhibit A = Site Plan
Exhibit B = Elevations
Exhibit C = Floor Plans
Exhibit G = Conceptual Grading
Exhibit L = Landscaping
Exhibit M = Color & Materials Board
Exhibit P = Photometric Plan
Exhibit R = Renderings
Exhibit T = Tentative Parcel Map

Planner: Brett Hamilton

SEE SHEET 6

SEE SHEET 3

PROPOSED BUILDING 1
1,254,160 SF
FF=1438.0

1500'

720'

60'

50.0'

70'

55'

28'

GRADE BREAK

PROP. 448 LF OF TRENCH DRAIN
127 TRAILER STALLS

PROP. VALLEY GUTTER

PROP. SCREEN WALL

PROP. STORM DRAIN

PROP. VALLEY GUTTER

EX. PP TO BE REMOVED & WIRES TO BE UNDERGROUNDED (TYP.)

PROP. FIRE HYDRANT (TYP.)

EX. FENCE PROTECT IN PLACE

DAWSON ROAD

APN: 331-150-036
LAND USE: SP 260
ZONING: SP 260

EX. PP PROTECT IN PLACE

EX. PP TO BE REMOVED & WIRES TO BE UNDERGROUNDED (TYP.)

PROP. SIDEWALK

N01°18'01"E 1814.77'

EX. R/W

PROP. R/W

PROP. CURB & GUTTER

EX. FENCE PROTECT IN PLACE

PROP. STORM DRAIN LINE A-1A

PROP. STREET LIGHT (TYP.)

PROP. 12" WATER LINE

PROP. 8" REC. WATER

EX. FENCE PROTECT IN PLACE

SEE SHEET 8

LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED LANDSCAPE AREA
- PROPOSED DECORATIVE PAVEMENT
- ADA PATH OF TRAVEL
- SCREEN WALL
- TUBE STEEL FENCE
- GRADEBREAK/RIDGELINE
- FLOWLINE
- SD — STORM DRAIN
- (1475) — EXISTING CONTOURS
- 1475 — PROPOSED CONTOURS
- EX W — EXISTING WATER LINE
- EX SS — EXISTING SEWER LINE
- SD — EXISTING STORM DRAIN
- G — EXISITING GAS LINE
- E — EXSTING ELECTRICAL LINE

FF	FINISHED FLOOR
FG	FINISHED GROUND
FS	FINISHED SURFACE
FL	FLOW LINE
GB	GRADE BREAK
HP	HIGH POINT
INV	INVERT
LS	LANDSCAPE AREA
LP	LOW POINT
MAX	MAXIMUM
PL	PROPERTY LINE
R/W	RIGHT OF WAY
TYP	TYPICAL
D/W	DRIVEWAY
RL	RIDGELINE

N
W WEBB E
S

1" = 30'
30 0 30 60 90

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE
CORE 5 - MENIFEE COMMERCE CENTER
PLOT PLAN NO. PP2019-005

SCALE:	1" = 30'
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W.O.	21-0026
SHEET	7
OF	14 SHEETS
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Planner: Brett Hamilton

SEE SHEET 4

SEE SHEET 7

PROPOSED BUILDING 1
1,254,160 SF
FF=1438.0

1500'

720'

LOMR 17-09-1814P-060176
FEMA FLOOD ZONE "X"

GRADE BREAK

127 TRAILER STALLS

DAWSON ROAD

PROP. STREET LIGHT (TYP.)

PROP. 12" WATER LINE

PROP. 8" REC. WATER

EX. FENCE PROTECT IN PLACE

PROP. VALLEY GUTTER

PROP. SCREEN WALL

PROP. STORM DRAIN

PROP. SIDEWALK

LOMR 17-09-1814P-060176
FEMA FLOOD ZONE "X"

APN: 331-150-041
LAND USE: SP 260
ZONING: SP 260

EX. R/W

PROP. R/W

PROP. CURB & GUTTER

PROP. STREET LIGHT (TYP.)

PROP. STORM DRAIN LINE A-1A

PROP. VALLEY GUTTER

PROP. SCREEN WALL

PROP. STORM DRAIN

SEE SHEET 9

LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED LANDSCAPE AREA
- PROPOSED DECORATIVE PAVEMENT
- ADA PATH OF TRAVEL
- SCREEN WALL
- TUBE STEEL FENCE
- GRADEBREAK/RIDGELINE
- FLOWLINE
- SD — STORM DRAIN
- (1475) — EXISTING CONTOURS
- 1475 — PROPOSED CONTOURS
- EX W — EXISTING WATER LINE
- EX SS — EXISTING SEWER LINE
- SD — EXISTING STORM DRAIN
- G — EXISIITING GAS LINE
- E — EXSTING ELECTRICAL LINE

FF	FINISHED FLOOR
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MAX	MAXIMUM
PL	PROPERTY LINE
R/W	RIGHT OF WAY
TYP	TYPICAL
D/W	DRIVEWAY
RL	RIDGELINE

N
W WEBB E
S

1" = 30'
30 0 30 60 90

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE

CORE 5 - MENIFEE COMMERCE CENTER
PLOT PLAN NO. PP2019-005

SCALE: 1" = 30'	ALBERT A. WEBB ASSOCIATES — ENGINEERING CONSULTANTS, 3788 McCRAY STREET, RIVERSIDE CA. 92506, PH. (951) 686-1070, FAX (951) 788-1256	W.O. 21-0026
DATE: 4/1/22		SHEET 8
DESIGNED: CV		OF 14 SHEETS
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PLN CK REF:		
F.B.		

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Planner: Brett Hamilton

SEE SHEET 8

SEE SHEET 5

PROPOSED BUILDING 1
1,254,160 SF
FF=1438.0

OFFICE

343 AUTO STALLS

121 TRAILER STALLS

36 AUTO STALLS

LOMR 17-09-1814P-060176
FEMA FLOOD ZONE "X"

EX. FENCE TO BE REMOVED

EX. STRUCTURE TO BE REMOVED

EX. BUILDING TO BE REMOVED

EX. WALL TO BE REMOVED

EX. PP TO BE REMOVED

EX. PP TO BE REMOVED & WIRES TO BE UNDERGROUNDED (TYP.)

PROP. STORM DRAIN

PROP. V-DITCH ALONG FENCE

PROP. GATE

PROP. VALLEY GUTTER

PROP. SCREEN WALL

PROP. R/W

PROP. CURB & GUTTER

PROP. FIRE HYDRANT (TYP.)

PROP. STREET LIGHT (TYP.)

ACCESSIBLE PATH

EX. FENCE PROTECT IN PLACE

EX. R/W

PROP. 12" WATER LINE

PROP. 8" REC. WATER

PROP. STORM DRAIN LINE A-1A

EX. FENCE TO BE REMOVED

COORDINATE WITH RCFC&WCD THE REPLACEMENT OF RCFC&WCD'S EXISTING CHAINLINK FENCE WITH A NEW TUBE STEEL FENCE

APN: 331-150-042
LAND USE: SP 260
ZONING: SP 260

APN: 331-140-019
LAND USE: BP
ZONING: BP

APN: 331-150-024
LAND USE: BP
ZONING: BP

DAMSON ROAD

DRIVEWAY

EXISTING CHANNEL
ROMOLAND LINE A

GRADE BREAK

RIDGE LINE

LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED LANDSCAPE AREA
- PROPOSED DECORATIVE PAVEMENT
- ADA PATH OF TRAVEL
- SCREEN WALL
- TUBE STEEL FENCE
- GRADEBREAK/RIDGELINE
- FLOWLINE
- SD — STORM DRAIN
- (1475) — EXISTING CONTOURS
- 1475 — PROPOSED CONTOURS
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- G — EXISITING GAS LINE
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FF	FINISHED FLOOR
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LS	LANDSCAPE AREA
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MAX	MAXIMUM
PL	PROPERTY LINE
R/W	RIGHT OF WAY
TYP	TYPICAL
D/W	DRIVEWAY
RL	RIDGELINE

N
W WEBB E
S

1" = 30'
30 0 30 60 90

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE
CORE 5 - MENIFEE COMMERCE CENTER
PLOT PLAN NO. PP2019-005

SCALE: 1" = 30'	ALBERT A. WEBB ASSOCIATES	ENGINEERING CONSULTANTS 3788 McCRAY STREET RIVERSIDE CA. 92506 PH. (951) 686-1070 FAX (951) 788-1256	W.O. 21-0026
DATE: 4/1/22			SHEET 9
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Planner: Brett Hamilton

APN: 331-110-026
LAND USE: EXISTING USE
ZONING: HI

APN: 331-100-012
LAND USE: CC
ZONING: CC

EX. WALL PROTECT IN PLACE

EX. FENCE TO BE REMOVED & REPLACED WITH 6' HIGH SCREEN WALL

P/L N89°16'57"W 624.04'

PROP. STREET LIGHT (TYP.)

EX. 18" RAW WATER

EX. PP & GUY WIRE TO BE RELOCATED TO NORTH P/L

EX. R/W

PROP. R/W

LOMR 17-09-1814P-060176
FEMA FLOOD ZONE "X"

PROPOSED DETENTION BASIN
TOP: 1429.0
BOT.: 1420.0-1420.2

20 TRAILER STALLS

72 TRAILER STALLS

EX. FENCE TO BE REMOVED & REPLACED WITH TUBE STEEL FENCE

APN: 331-100-013
LAND USE: CC
ZONING: CC

FUTURE R/W

EX. CURB & GUTTER PROTECT IN PLACE

EXISTING RESIDENCE TO BE DEMOLISHED

EX. WELL TO BE BACKFILLED & ABANDONED

PROPOSED SCREEN WALL

RIDGE LINE

EX. CURB & GUTTER TO BE REMOVED

30' FUT. D/W PER DPR 05-0337

TRUMBLE ROAD

CITY OF PERRIS

CITY OF MENIFEE

APN: 331-100-014
LAND USE: CC
ZONING: CC

43 AUTO STALLS

PROP. STORM DRAIN

PROP. VALLEY GUTTER

APN: 331-100-015
LAND USE: CC
ZONING: CC

PROP. SD LINE A-21

60' FUTURE D/W PER DPR NO. 06-0337

PROP. STORM DRAIN

PROP. DIVERSION STRUCTURE

PROP. GATE

PROP. FIRE HYDRANT (TYP.)

PROP. STREET LIGHT (TYP.)

PROP. WQMP TREATMENT DEVICE

PROP. WQMP LIFT STATION

APN: 331-100-019
LAND USE: CC
ZONING: CC

PROP. 12" WATER LINE

PROP. 8" REC. WATER

OFFICE

ACCESSIBLE PATH

GRADE BREAK

PROPOSED BUILDING 2
385,970 SF
FF=1435.0

Storm drain lateral to be provided for project to the north on Sherman Road.

APN: 331-110-038
LAND USE: SP 260
ZONING: SP 260

LOMR 17-09-1814P-060176
ONE "X"

SEE SHEET 11

SEE SHEET 12

LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED LANDSCAPE AREA
- PROPOSED DECORATIVE PAVEMENT
- ADA PATH OF TRAVEL
- SCREEN WALL
- TUBE STEEL FENCE
- GRADEBREAK/RIDGELINE
- FLOWLINE
- SD — STORM DRAIN
- (1415) — EXISTING CONTOURS
- 1415 — PROPOSED CONTOURS
- EX W — EXISTING WATER LINE
- EX SS — EXISTING SEWER LINE
- SD — EXISTING STORM DRAIN
- G — EXISITING GAS LINE
- E — EXSTING ELECTRICAL LINE

FF	FINISHED FLOOR
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FS	FINISHED SURFACE
FL	FLOW LINE
GB	GRADE BREAK
HP	HIGH POINT
INV	INVERT
LS	LANDSCAPE AREA
LP	LOW POINT
MAX	MAXIMUM
PL	PROPERTY LINE
R/W	RIGHT OF WAY
TYP	TYPICAL
D/W	DRIVEWAY
RL	RIDGELINE

N
W WEBB E
S

1" = 30'
30 0 30 60 90

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE
CORE 5 - MENIFEE COMMERCE CENTER
PLOT PLAN NO. PP2019-005

SCALE:	1" = 30'
DATE:	4/1/22
DESIGNED:	CV
CHECKED:	
PLN CK REF:	
F.B.	

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET
RIVERSIDE, CA. 92506
PH. (951) 686-1070
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W.O. 21-0026
SHEET 10
OF 14 SHEETS
DWG. NO.

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ATTACHMENT NO. 2
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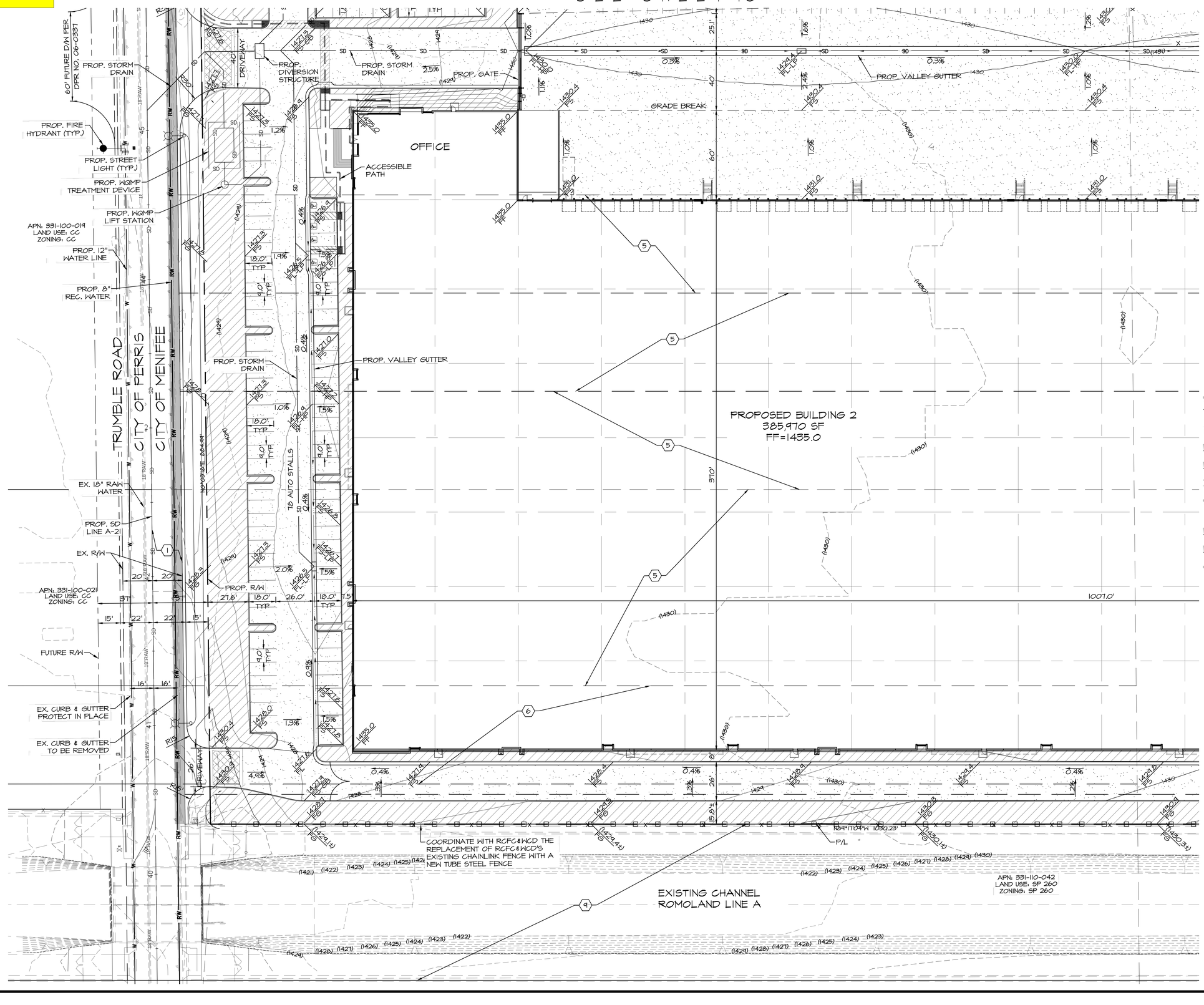
Exhibit T = Tentative Parcel Map

Planner: Brett Hamilton

SEE SHEET 10



LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED LANDSCAPE AREA
- PROPOSED DECORATIVE PAVEMENT
- ADA PATH OF TRAVEL
- SCREEN WALL
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- GRADEBREAK/RIDGELINE
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MAX	MAXIMUM
PL	PROPERTY LINE
R/W	RIGHT OF WAY
TYP	TYPICAL
D/W	DRIVEWAY
RL	RIDGELINE

SEE SHEET 12

N
W WEBB E
S

1" = 30'
30 0 30 60 90

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE
CORE 5 - MENIFEE COMMERCE CENTER
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Planner: Brett Hamilton

EX. FENCE TO BE REMOVED
PROP. TUBE STEEL FENCE
P/L
APN: 331-110-038
LAND USE: SP 260
ZONING: SP 260
N84°17'00"W 601.69'
EX. FENCE PROTECT IN PLACE
PROP. TRASH ENCLOSURE
PROP. PUMP HOUSE
PROP. GATE
PROP. STORM DRAIN
PROP. VALLEY GUTTER
GRADE BREAK
OFFICE
18 AUTO STALLS
PROP. VALLEY GUTTER
ACCESSIBLE PATH
PROP. EMPLOYEE BREAK AREA
LOMR 17-09-1814P-060176
FEMA FLOOD ZONE "X"
PROPOSED BUILDING 2
385,970 SF
FF=1435.0
PROP. VALLEY GUTTER
1007.0'
PROP. STORM DRAIN LINE A-1
PROP. 8" REC. WATER
PROP. WATER
PROP. STREET LIGHT (TYP.)
EX. 12" WATER
PROP. SEWER
EX. 10" ABANDONED WATER LINE
EX. R/W
PROP. SIDEWALK
EX. 12" WATER
PROP. 8" REC. WATER
SHERMAN ROAD
PROP. WQMP TREATMENT DEVICE
PROP. R/W
PROP. CURB & GUTTER
PROP. SEWER
PROP. STORM DRAIN LINE A-1
PROP. STREET LIGHT (TYP.)
EX. 12" WATER
PROP. WA
DRIVEWAY
COORDINATE WITH RCFC&WCD THE REPLACEMENT OF RCFC&WCD'S EXISTING CHAINLINK FENCE WITH A NEW TUBE STEEL FENCE
EXISTING CHANNEL ROMOLAND LINE A
PROP. SEWER TO CONNECT TO EX. AT MCLAUGHLIN RD & SHERMAN RD INTERSECTION
SHERMAN RD & FLOOD CONTROL CHANNEL C/L INTERSECTION
SEE SHEET 11
SEE SHEET 5

LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED LANDSCAPE AREA
- PROPOSED DECORATIVE PAVEMENT
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- SCREEN WALL
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PL	PROPERTY LINE
R/W	RIGHT OF WAY
TYP	TYPICAL
D/W	DRIVEWAY
RL	RIDGELINE

N W E S

1" = 30'
30 0 30 60 90

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE

CORE 5 - MENIFEE COMMERCE CENTER
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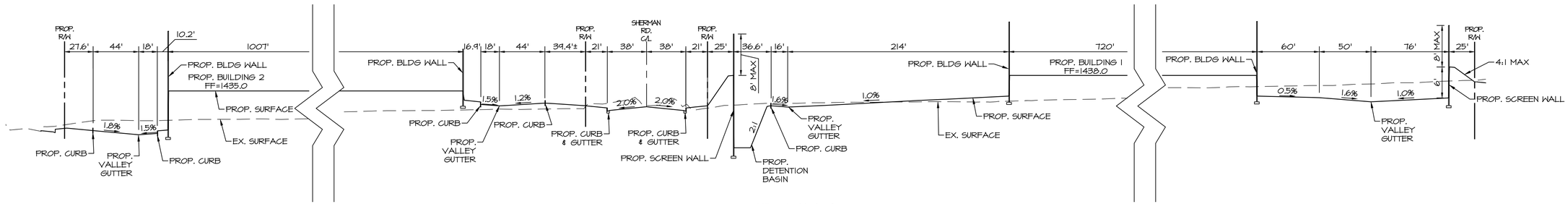
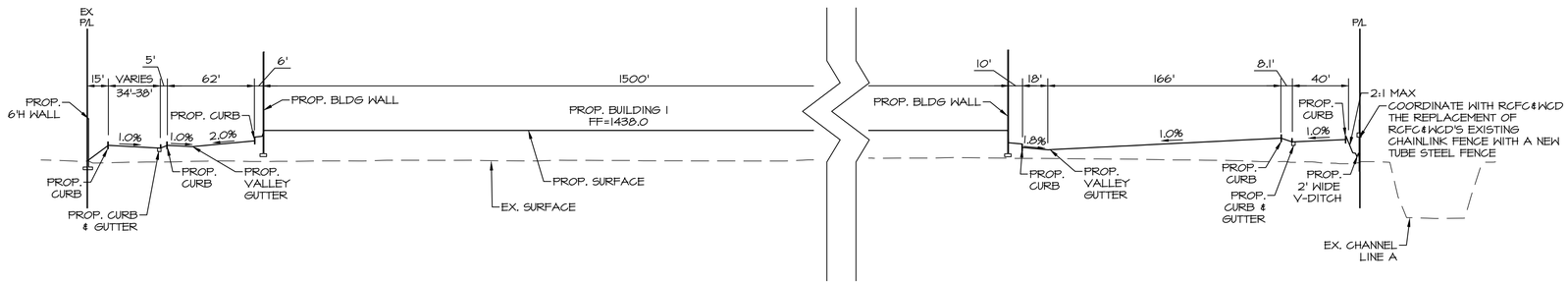
Planner: Brett Hamilton



SECTION A-A
NOT TO SCALE



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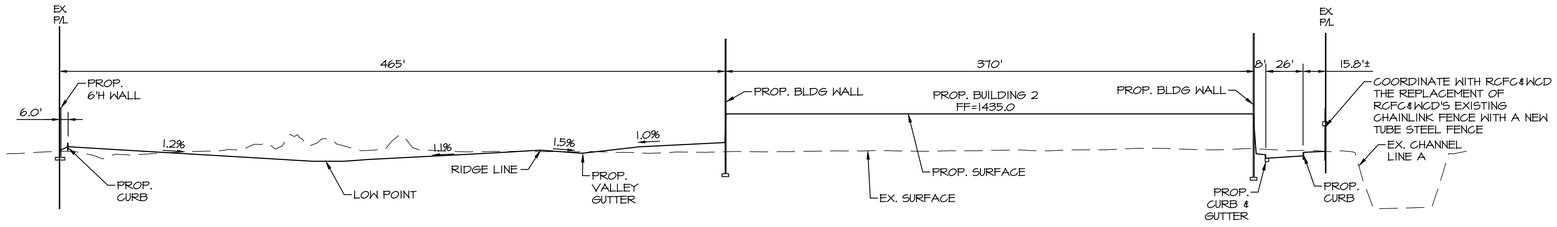
NOT TO SCALE



SECTION C-C
NOT TO SCALE

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE
CORE 5 - MENIFEE COMMERCE CENTER
PLOT PLAN NO. PP2019-005

SCALE: 1" = 30'	ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS 3788 McCRAY STREET RIVERSIDE CA. 92506 PH. (951) 686-1070 FAX (951) 788-1256	W.O. 21-0026
DATE: 4/1/22		SHEET 13
DESIGNED: CV		OF 14 SHEETS
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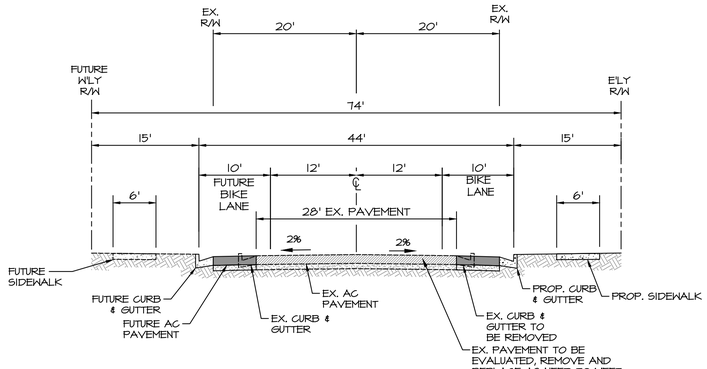
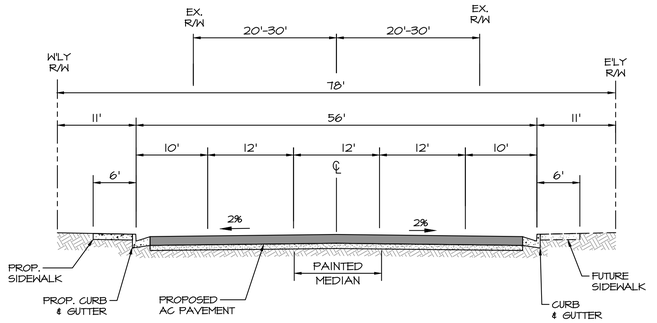
Exhibit T = Tentative Parcel Map

Planner: Brett Hamilton



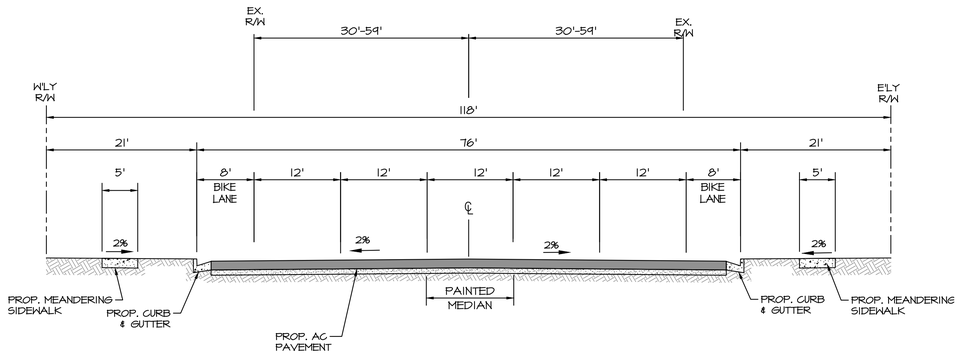
TRUMBLE ROAD

COLLECTOR (CITY OF MENIFEE STD. 113)
NOT TO SCALE



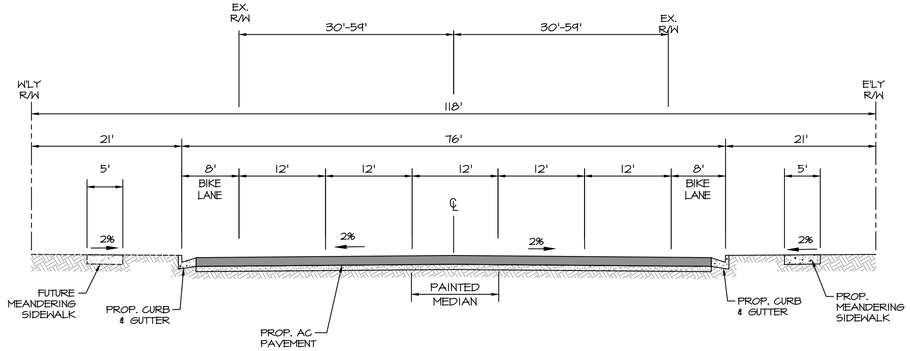
DAWSON ROAD

INDUSTRIAL COLLECTOR (CITY OF MENIFEE STD. 112)
NOT TO SCALE



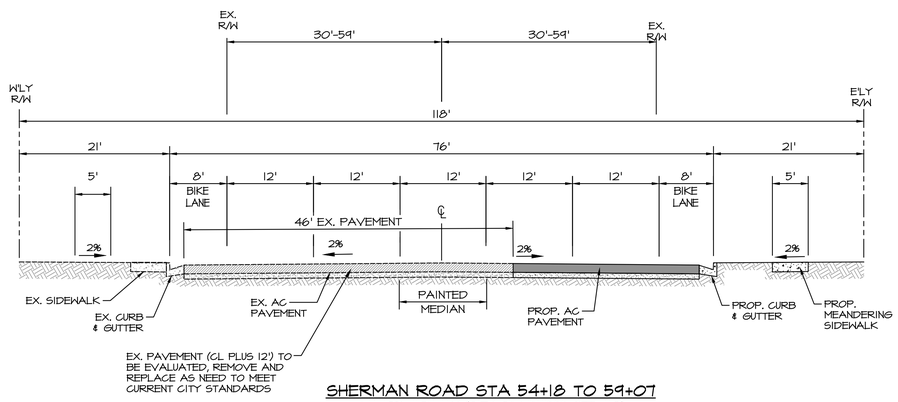
SHERMAN ROAD STA 40+33 TO 45+89

MAJOR HIGHWAY (CITY OF MENIFEE STD. 110)
NOT TO SCALE



SHERMAN ROAD STA 45+89 TO 54+18

MAJOR HIGHWAY (CITY OF MENIFEE STD. 110)
NOT TO SCALE



SHERMAN ROAD STA 54+18 TO 59+07

MAJOR HIGHWAY (CITY OF MENIFEE STD. 110)
NOT TO SCALE

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE

CORE 5 - MENIFEE COMMERCE CENTER
PLOT PLAN NO. PP2019-005

SCALE: 1" = 30'	ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS 3788 McCRAY STREET RIVERSIDE CA. 92506 PH. (951) 686-1070 FAX (951) 788-1256	W.O. 21-0026
DATE: 4/1/22		SHEET 14
DESIGNED: CV		OF 14 SHEETS
CHECKED:		
PLN CK REF:		DWG. NO.
F.B.		

H:\2021\21-0026\DRAWINGS\ENTITLEMENT\21-0026-PP.DWG 4/7/2022 2:42:48 PM

ATTACHMENT NO. 2
PROJECT PLANS & EXHIBITS
(October 19, 2022 City Council)

Exhibit A = Site Plan
Exhibit B = Elevations
Exhibit C = Floor Plans
Exhibit G = Conceptual Grading
Exhibit L = Landscaping
Exhibit M = Color & Materials Board
Exhibit P = Photometric Plan
Exhibit R = Renderings
Exhibit T = Tentative Parcel Map

Planner: Brett Hamilton

CITY OF MENIFEE
CORE 5 - MENIFEE COMMERCE CENTER
TENTATIVE PARCEL MAP NO. 38156

PROPERTY OWNERS:

APN: 331-110-027
MOTTE TOWN CENTER ONE
41371 KALMIA ST, SUITE 200
MURRIETA, CA 92562

APN: 331-110-035
JOHN V. MOTTE & EVELYN E. MOTTE
445 SOUTH D ST
PERRIS, CA 92570

APN: 331-110-041 & 331-140-025
MOTTE TOWNE CENTER
445 SOUTH D ST
PERRIS, CA 92570

APN: 331-140-010
MOTTE TOWN CENTER ONE
41391 KALMIA ST, SUITE 200
MURRIETA, CA 92562

APN: 331-140-018
KARLAN CHAMBERLIN & BETH RODSON CHAMBERLIN
26375 DAWSON RD
SUN CITY, CA 92585

APN: 331-140-021
TRACY FRIZELLE
15635 VISTA WAY, #100
LAKE ELSINORE, CA 92532

APPLICANT:

COMPANY: CORE 5 INDUSTRIAL PARTNERS, LLC
CONTACT: JON KELLY
ADDRESS: 300 SPECTRUM CENTER DR, SUITE 880
IRVINE, CA 92618
PHONE: (949) 467-3281
EMAIL: JKELLY@C5IP.COM

ENGINEER:

COMPANY: ALBERT A. WEBB ASSOCIATES
CONTACT: SARAH KOWALSKI
ADDRESS: 3788 MCCRAY STREET,
RIVERSIDE, CA 92506
PHONE: (951) 686-1070
FAX: (951) 788-1256
EMAIL: SARAH.KOWALSKI@WEBBASSOCIATES.COM

TOPOGRAPHY:

COMPANY: INLAND AERIAL SURVEY, INC.
ADDRESS: 1111 ARLINGTON AVE, SUITE A
RIVERSIDE, CA 92503
PHONE: (951) 687-4252
DATED: NOVEMBER 20, 2020

ARCHITECT:

COMPANY: HPA ARCHITECTS
CONTACT: STEVE HONG
ADDRESS: 18831 BARDEEN AVE, SUITE 100
IRVINE, CA 92612
PHONE: (949) 863-1770

LEGAL DESCRIPTION:

THIS PROPERTY SURVEYED AND SHOWN HEREON IS THE SAME PROPERTY AS DESCRIBED IN EXHIBIT A OF FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT FOR TITLE INSURANCE ORDER NO. NCS-986347-ATL WITH COMMITMENT DATE OF MARCH 24, 2021.

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1:

ALL THAT PORTION OF LOT SIXTY-EIGHT (68), AS SHOWN ON MAPS OF TRUMBLE FARMS ON FILE IN MAP BOOK 11, AT PAGE 38 THEREOF, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID LOT 68, SAID POINT BEARS SOUTH 0° 11' 15" EAST A DISTANCE OF 66 FEET FROM THE NORTHEAST CORNER OF SAID LOT 68; THENCE NORTH 89° 43' WEST A DISTANCE OF 661.31 FEET; THENCE SOUTH 0° 15' EAST A DISTANCE OF 66 FEET; THENCE SOUTH 89° 43' EAST A DISTANCE OF 661.31 FEET TO THE EAST BOUNDARY OF SAID LOT 68; THENCE NORTH 0° 11' 15" WEST ALONG THE EAST BOUNDARY OF SAID LOT 68 A DISTANCE OF 66 FEET TO THE POINT OF BEGINNING.

PARCEL 2:

LOTS 37, 38, 39, 58, 59, OF TRUMBLE FARMS, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 11, PAGE 38, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

EXCEPTING THEREFROM THE NORTH 66.00 FEET OF THE SOUTH 198.00 FEET OF LOT 37.

ALSO EXCEPTING THEREFROM THAT PORTION CONVEYED TO RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT AS SHOWN IN DOCUMENT RECORDED SEPTEMBER 12, 2014 INSTRUMENT NUMBERS 2014-0347907 AND 2014-0347908, BOTH OF OFFICIAL RECORDS

PARCEL 3:

LOTS 66, 67, 68, 69, 70, 71, 91, 92, 93, 94, AND 95 OF TRUMBLE FARMS, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 11, PAGE 38 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPT THE SOUTH 66.00 FEET OF THE NORTH 132.00 FEET OF LOT 68.

ALSO EXCEPT THE NORTH 66.00 FEET OF LOT 95.

FURTHER EXCEPTING THEREFROM THAT PORTION CONVEYED TO RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT AS SHOWN IN DOCUMENT RECORDED SEPTEMBER 12, 2014 INSTRUMENT NUMBER 2014-0347909, OF OFFICIAL RECORDS.

PARCEL 4:

THAT PORTION OF LOT 37 OF TRUMBLE FARMS, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 11, PAGE 38 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, BY METES AND BOUNDS, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EASTERLY LINE OF SAID LOT WHICH BEARS SOUTH 0° 18 MINUTES 43 SECONDS EAST, 132 FEET FROM THE NORTHEAST CORNER OF SAID LOT;

THENCE NORTH 89° 43 MINUTES WEST, 640.98 FEET TO THE WESTERLY LINE OF SAID LOT;

THENCE SOUTH 0° 22 MINUTES, 30 SECONDS EAST ON THE WESTERLY LINE, 66 FEET;

THENCE SOUTH 89° 43 MINUTES EAST, 640.91 FEET TO THE EASTERLY LINE OF SAID LOT, THENCE NORTH 0° 45 SECONDS WEST, 66 FEET TO THE POINT OF BEGINNING.

PURSUANT TO CERTIFICATE OF COMPLIANCE NO. 5540 RECORDED JANUARY 8, 2004 AS INSTRUMENT NO. 04-12423, OF OFFICIAL RECORDS.

FOR CONVEYANCING PURPOSES ONLY: APN 331-140-010-1 (AFFECTS PARCEL 1); 331-110-041-6 (AFFECTS PORTION OF PARCEL 2); 331-110-035-1
(AFFECTS PORTION OF PARCEL 2); 331-140-025-5 (AFFECTS PARCEL 3) AND 331-110-027-4 (AFFECTS PARCEL 4)

THIS PROPERTY SURVEYED AND SHOWN HEREON IS THE SAME PROPERTY AS DESCRIBED IN EXHIBIT A OF FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT FOR TITLE INSURANCE ORDER NO. NCS-986347-AI-ATL WITH COMMITMENT DATE OF APRIL 09, 2021.

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL NO. 1, AS SHOWN ON PARCEL MAP NO. 12337, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 87, PAGE(S) 94 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

FOR CONVEYANCING PURPOSES ONLY: APN 331-140-018

THIS PROPERTY SURVEYED AND SHOWN HEREON IS THE SAME PROPERTY AS DESCRIBED IN EXHIBIT A OF FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT FOR TITLE INSURANCE ORDER NO. NCS-986347-BI-ATL WITH COMMITMENT DATE OF APRIL 09, 2021.

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

THAT PORTION OF LOT NINETY-FIVE (95), AS SHOWN ON A MAP OF TRUMBLE FARMS ON FILE IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY, CALIFORNIA, IN BOOK 11, PAGE 38 OF MAPS, BY METES AND BOUNDS, BEGINNING AT THE NORTHWEST CORNER OF SAID LOT;

THENCE SOUTH 89° 43' EAST, 642.11 FEET TO THE NORTHEAST CORNER THEREOF;

THENCE SOUTH 0° 07' 30" EAST ON THE EASTERLY LINE OF SAID LOT, 66 FEET;

THENCE NORTH 89° 43' WEST 642.04 FEET TO THE WESTERLY LINE OF SAID LOT;

THENCE NORTH 0° 11' 15" WEST ON SAID WESTERLY LINE OF SAID LOT, 66 FEET TO THE POINT OF BEGINNING.

FOR CONVEYANCING PURPOSES ONLY: APN 331-140-021

EASEMENT NOTES

(1) AN EASEMENT SHOWN OR DEDICATED ON THE MAP OF TRUMBLE FARMS RECORDED FEBRUARY 1924 AND ON FILE IN BOOK 11, PAGE 38, OF TRACT MAPS, FOR STREET AND PUBLIC UTILITY AND INCIDENTAL PURPOSES.
THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED RESOLUTION NO. 84-165 ACCEPTING OFFERS OF DEDICATIONS FOR PUBLIC ROADS (DAWSON ROAD) RECORDED JUNE 8, 1984 AS INSTRUMENT NO. 107654 OF OFFICIAL RECORDS.
THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED CERTIFICATE OF ACCEPTANCE (PORTION OF TRUMBLE ROAD) RECORDED OCTOBER 5, 2015 AS INSTRUMENT NO. 2015-0434869 OF OFFICIAL RECORDS.

(2) AN EASEMENT FOR PUBLIC HIGHWAY AND INCIDENTAL PURPOSES, RECORDED OCTOBER 2, 1924 IN BOOK 619 OF DEEDS, PAGE 11, IN FAVOR OF PUBLIC. AFFECTS: WEST 30 FEET OF PARCEL 1

(3) AN EASEMENT FOR PIPELINES AND INCIDENTAL PURPOSES, RECORDED MARCH 31, 1926 IN BOOK 666 OF DEEDS, PAGE 585, IN FAVOR OF MILON J. TRUMBLE, ET UX.
AFFECTS: A PORTION OF PARCEL 2 AND 4
*THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.

(4) AN EASEMENT FOR PUBLIC UTILITIES AND POWER LINES AND INCIDENTAL PURPOSES, RECORDED MAY 17, 1926 IN BOOK 673 OF DEEDS, PAGE 500, IN FAVOR OF SOUTHERN SIERRAS POWER COMPANY.

(5) AN EASEMENT FOR PIPELINES, OR OPEN DITCHES AND DRILLING ADDITIONAL WELLS AND INCIDENTAL PURPOSES, RECORDED MAY 5, 1928 IN BOOK 760 OF DEEDS, PAGE 457 .
IN FAVOR OF: ALEXANDER HURSH AND WILLIE LEE HURSH
AFFECTS: A PORTION OF PARCEL 4
*THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.

AN EASEMENT FOR CONSTRUCTION MAINTENANCE AND OPERATION OF ELECTRIC POLE LINES AND ALL UNDERGROUND CONDUITS AND INCIDENTAL PURPOSES, RECORDED MAY 11, 1928 IN BOOK 766 OF DEEDS, PAGE 103, IN FAVOR OF SOUTHERN SIERRAS POWER COMPANY, A CORPORATION.
*[BLANKET IN NATURE - CANNOT BE PLOTTED]

(6) AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED MAY 18, 1928 IN BOOK 768 OF DEEDS, PAGE 66, IN FAVOR OF PACIFIC DEVELOPMENT COMPANY.

AN EASEMENT FOR PIPELINES PUMPING EQUIPMENT ACCESS AND DITCHES AND INCIDENTAL PURPOSES, RECORDED JULY 19, 1933 AS BOOK 124, PAGE 50 OF OFFICIAL RECORDS, IN FAVOR OF WATSON WATER COMPANY.
*THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.
*[BLANKET IN NATURE - CANNOT BE PLOTTED - AFFECTS ALL LOTS IN MB 11/38]

AN EASEMENT FOR RIGHT OF WAY FOR LAYING PIPE LINES FOR CONVEYANCE OF WATER AND INCIDENTAL PURPOSES, RECORDED JUNE 6, 1935 AS BOOK 236, PAGE 83 OF OFFICIAL RECORDS, IN FAVOR OF HOME FARM CORPORATION.
*THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.
[BLANKET IN NATURE - CANNOT BE PLOTTED - AFFECTS ALL LOTS IN MB 11/38]

AN EASEMENT FOR DITCHES, PIPELINES AND OTHER APPARATUS FOR THE DISTRIBUTION OF WATER FOR DOMESTIC AND IRRIGATION PURPOSES AND INCIDENTAL PURPOSES, RECORDED MARCH 4, 1964 AS INSTRUMENT NO. 21383 AND JANUARY 15, 1965 AS INSTRUMENT NO. 5624, BOTH OF OFFICIAL RECORDS, IN FAVOR OF TEMESCAL WATER COMPANY IT'S SUCCESSORS AND ASSIGNS.
*THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.
[#1964-021383 & 1965-005624 ARE OUTSIDE OF THIS SECTION 15]
[THEY SHOULD BE REMOVED FROM PTR]

(7) AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED SEPTEMBER 14, 2000 AS INSTRUMENT NO. 361280 OF OFFICIAL RECORDS, IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION.
RESTRICTIONS ON THE USE, BY THE OWNERS OF SAID LAND, OF THE EASEMENT AREA, AS SET OUT IN SAID DOCUMENT.

(8) AN OFFER OF DEDICATION FOR STORM DRAIN FOR FLOOD CONTROL AND DRAINAGE PURPOSES AND INCIDENTAL PURPOSES, RECORDED SEPTEMBER 2, 2004 AS INSTRUMENT NO. 2004-0648581 OF OFFICIAL RECORDS, TO THE COUNTY OF RIVERSIDE ON BEHALF OF RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT.

(9) AN OFFER OF DEDICATION FOR STORM DRAIN FOR FLOOD CONTROL AND DRAINAGE PURPOSES AND INCIDENTAL PURPOSES, RECORDED SEPTEMBER 2, 2004 AS INSTRUMENT NO. 2004-0648582 OF OFFICIAL RECORDS, TO THE COUNTY OF RIVERSIDE ON BEHALF OF RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT.

(10) AN EASEMENT FOR TEMPORARY CONSTRUCTION EASEMENT AND INCIDENTAL PURPOSES, RECORDED FEBRUARY 16, 2007 AS INSTRUMENT NO. 2007-0114245 OF OFFICIAL RECORDS, IN FAVOR OF HOMELAND/ROMOLAND ADP INC., A DELAWARE CORPORATION.
THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED ASSIGNMENT OF EASEMENT RECORDED NOVEMBER 14, 2014 AS INSTRUMENT NO. 2014-0431238 OF OFFICIAL RECORDS.

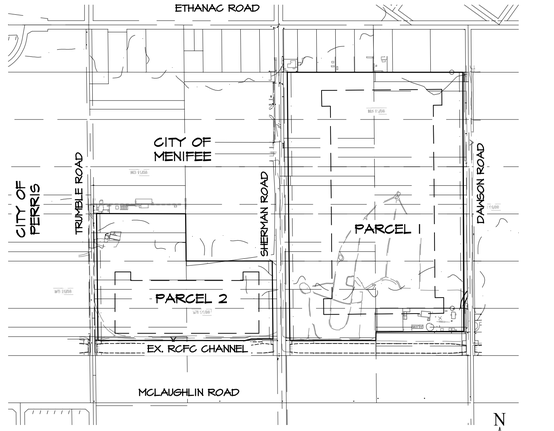
(11) AN EASEMENT FOR TEMPORARY CONSTRUCTION EASEMENT AND INCIDENTAL PURPOSES, RECORDED FEBRUARY 16, 2007 AS INSTRUMENT NO. 2007-0114246 OF OFFICIAL RECORDS, IN FAVOR OF HOMELAND/ROMOLAND ADP INC., A DELAWARE CORPORATION.
THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED ASSIGNMENT OF EASEMENT RECORDED NOVEMBER 14, 2014 AS INSTRUMENT NO. 2014-0431237 OF OFFICIAL RECORDS.

(12) AN EASEMENT FOR PUBLIC ROAD AND DRAINAGE PURPOSES, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES PURPOSES AND INCIDENTAL PURPOSES, RECORDED MAY 1, 2007 AS INSTRUMENT NO. 2007-0240073 OF OFFICIAL RECORDS, IN FAVOR OF THE COUNTY OF RIVERSIDE.

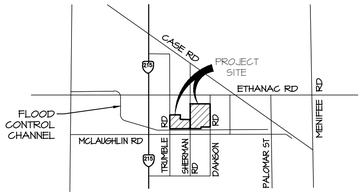
(13) AN EASEMENT FOR PUBLIC ROAD AND DRAINAGE PURPOSES, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES PURPOSES AND INCIDENTAL PURPOSES, RECORDED MAY 1, 2007 AS INSTRUMENT NO. 2007-0240074 OF OFFICIAL RECORDS, IN FAVOR OF THE COUNTY OF RIVERSIDE.

(14) AN EASEMENT FOR PUBLIC ROAD AND DRAINAGE PURPOSES, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES PURPOSES AND INCIDENTAL PURPOSES, RECORDED MAY 30, 2007 AS INSTRUMENT NO. 2007-0352042 OF OFFICIAL RECORDS, IN FAVOR OF THE COUNTY OF RIVERSIDE.

(15) AN EASEMENT FOR PUBLIC ROAD AND DRAINAGE PURPOSES, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES PURPOSES AND INCIDENTAL PURPOSES, RECORDED MAY 30, 2007 AS INSTRUMENT NO. 2007-0352043 OF OFFICIAL RECORDS, IN FAVOR OF THE COUNTY OF RIVERSIDE.



INDEX MAP
1" = 500'
500 0 500



VICINITY MAP
NOT TO SCALE
SEC. 15, T5S, R3W, SBM

ACREAGE

	PARCEL 1	PARCEL 2	TOTAL
GROSS SITE AREA:	55.88 A.C.	21.79 A.C.	77.67 A.C.
TRUMBLE ROAD:	0.00 A.C. DEDICATION	0.75 A.C. DEDICATION	0.75 A.C.
SHERMAN ROAD:	2.54 A.C. DEDICATION	0.74 A.C. DEDICATION	3.28 A.C.
DAWSON ROAD:	1.51 A.C. DEDICATION	0.00 A.C. DEDICATION	1.51 A.C.
NET SITE AREA:	51.83 A.C.	20.29 A.C.	72.12 A.C.

A.P.N.:

331-110-027, 331-110-035, 331-110-041
331-140-010, 331-140-018, 331-140-021, 331-140-025

NOTES

1. 2007 THOMAS BROTHERS MAP:
PAGE 838, GRID C-2, D-1, & D-2
2. THIS AREA IS SUBJECT TO LOW LIQUEFACTION.
3. THE MAJORITY OF THE PROJECT IS WITHIN THE MENIFEE NORTH SPECIFIC PLAN #260.
4. THIS PROJECT IS WITHIN A COMMUNITY SERVICES DISTRICT AREA #146 OF MARCH AIR RESERVE BASE.
5. THIS PROJECT IS WITHIN THE AIRPORT COMPATIBILITY ZONE D & E.
6. CONTOURS ARE SHOWN AT 1' INTERVALS.
7. SEE DEVELOPMENT PLAN FOR EXISTING CONTOURS & PROPOSED GRADING.
8. INCLUDES THE ENTIRE CONTIGUOUS OWNERSHIP OF LAND DIVIDERS.
9. FEMA COMMUNITY PANEL NO. 06065C2060H, ZONE X.
REVISED TO REFLECT LOMR 17-09-1814P, EFFECTIVE MARCH 19, 2018.

LAND USE/ZONING

EXISTING ZONING:	HEAVY INDUSTRIAL / SP 260 / BUSINESS PARK
PROPOSED ZONING:	SP 260
EXISTING GENERAL PLAN USE:	HEAVY INDUSTRIAL / SP 260 / BUSINESS PARK
PROPOSED GENERAL PLAN USE:	SP 260
EXISTING LAND USE:	VACANT / RESIDENTIAL
PROPOSED LAND USE:	WAREHOUSE DISTRIBUTION

UTILITY COMPANIES:

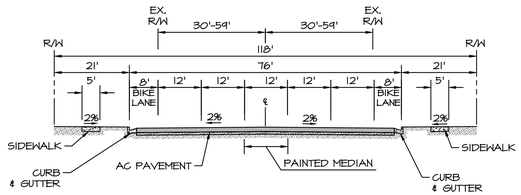
WATER:	EASTERN MUNICIPAL WATER DISTRICT
SEWER:	EASTERN MUNICIPAL WATER DISTRICT
ELECTRIC:	SOUTHERN CALIFORNIA EDISON COMPANY
GAS:	SOUTHERN CALIFORNIA GAS COMPANY
TELEPHONE/CABLE:	FRONTIER COMMUNICATIONS

SCHOOL DISTRICT

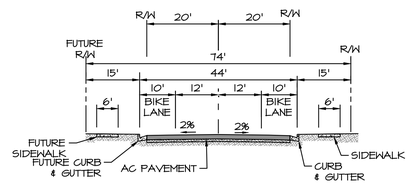
ROMOLAND & PERRIS UNION HIGH SCHOOL DISTRICT

SHEET INDEX

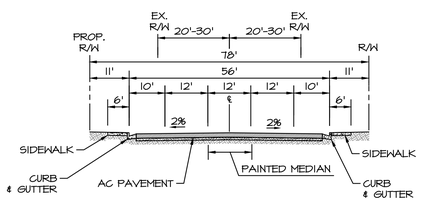
SHEET 1 INDEX MAP, NOTES, AND STREET SECTIONS
SHEET 2 PARCEL 1 & 2 TENTATIVE PARCEL MAP



SHERMAN ROAD
MAJOR (CITY OF MENIFEE STD 110)
NOT TO SCALE
ETHANAC ROAD TO EX. RCFC CHANNEL



TRUMBLE ROAD
COLLECTOR (CITY OF MENIFEE STD 113)
NOT TO SCALE
ETHANAC ROAD TO EX. RCFC CHANNEL



DAWSON ROAD
INDUSTRIAL COLLECTOR (CITY OF MENIFEE STD 112)
NOT TO SCALE
ETHANAC ROAD TO EX. RCFC CHANNEL

PRELIMINARY

REVISIONS	DATE	BY

CITY OF MENIFEE

CORE 5 - MENIFEE COMMERCE CENTER
TENTATIVE PARCEL MAP NO. 38156
SCHEDULE "E"

SCALE:	1"=500'	ALBERT A. WEBB ASSOCIATES	W.O. 2021-0026
DATE:	4/6/22	ENGINEERING CONSULTANTS 3788 McCRAY STREET RIVERSIDE CA. 92506 PH. (951) 686-1070 FAX (951) 788-1256	SHEET 1 OF 2 SHEETS
DESIGNED:	EA		
CHECKED:	SRH		
PLN CK REF:			DWG. NO.
F.B.			

H:\2021\21-0026\DRAWINGS\ENTITLEMENT\21-0026 - C - TPM.DWG 4/6/2022 7:46:49 AM

ATTACHMENT NO. 2
PROJECT PLANS & EXHIBITS
(October 19, 2022 City Council)

Exhibit A = Site Plan
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Exhibit P = Photometric Plan
Exhibit R = Renderings
Exhibit T = Tentative Parcel Map

Planner: Brett Hamilton

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- EXISTING CENTERLINE
- EX W — EXISTING WATER LINE
- EDGE OF EXISTING PAVEMENT
- EXISTING EASEMENT
- SD — PROPOSED STORM DRAIN
- SS — PROPOSED SEWER
- EX SD — EXISTING STORM DRAIN
- G — EXISTING GAS
- T — EXISTING TELEPHONE
- FIBER — EXISTING FIBER
- E — EXISTING ELECTRICITY
- EXISTING PARCEL LINE

ABBREVIATIONS

AC	ACRE
C&G	CURB AND GUTTER
C/L	CENTERLINE
EX.	EXISTING
FH	FIRE HYDRANT
IOD	IRREVOCABLE OFFER OF DEDICATION
OHE	OVERHEAD ELECTRICAL
PROP.	PROPOSED
R/W	RIGHT OF WAY
SD	STORM DRAIN
SF	SQUARE FEET
S/L	STREET LIGHT
SWR	SANITARY SEWER
S/W	SIDEWALK
WTR	WATER
WQ	WATER QUALITY

EXISTING POWER POLE TO BE REMOVED
EXISTING POWER POLE PROTECT IN PLACE
EXISTING FENCE
APN: 331-140-013 LAND USE: BP ZONING: BP
APN: 331-140-002 LAND USE: BP ZONING: BP
APN: 331-140-003 LAND USE: BP ZONING: BP
APN: 331-140-004 LAND USE: BP ZONING: BP
APN: 331-140-005 LAND USE: BP ZONING: BP
APN: 331-140-006 LAND USE: BP ZONING: BP
APN: 331-140-020 LAND USE: BP ZONING: BP
APN: 331-150-022 LAND USE: BP ZONING: BP
N89°17'05"W 623.10'
APN: 331-110-017 LAND USE: BP ZONING: BP
331-140-001 LAND USE: BP ZONING: BP
EXISTING FIRE HYDRANT PROTECT IN PLACE
EXISTING DRIVEWAY
EXISTING POWER POLE TO BE REMOVED
BUILDING SETBACK LINE
APN: 331-110-039 LAND USE: SP 260 ZONING: SP 260
MB 11/38
PROPOSED BUILDING
APN: 331-150-040 LAND USE: SP 260 ZONING: SP 260
EXISTING POWER POLE TO BE REMOVED
29' DEDICATION
APN: 331-110-039 LAND USE: HI ZONING: HI
EXISTING POWER POLE TO BE REMOVED
19' DEDICATION
EXISTING POWER POLE TO BE REMOVED
EXISTING POWER POLE PROTECT IN PLACE
APN: 331-150-036 LAND USE: SP 260 ZONING: SP 260
CITY OF PERRIS
CITY OF MENIFEE
MB 11/38
APN: 331-100-029 LAND USE: CC ZONING: CC
APN: 331-110-039 LAND USE: SP 260 ZONING: SP 260
APN: 331-110-025 LAND USE: EXISTING USE ZONING: HI
APN: 331-100-011 LAND USE: CC ZONING: CC
EXISTING BLOCK WALL
SHERMAN ROAD
APN: 331-100-012 LAND USE: CC ZONING: CC
APN: 331-110-026 LAND USE: EXISTING USE ZONING: HI
N89°16'57"W 624.04'
EXISTING 12" WATER
N01°10'34"E 1874.86'
PARCEL 1
55.88 AC GROSS
51.83 AC NET
DAWSON ROAD
N01°18'01"E 1814.77'
MB 11/38
EXISTING FENCE
EXISTING FENCE
APN: 331-100-013 LAND USE: CC ZONING: CC
EXISTING POWER POLE TO BE REMOVED
EXISTING RESIDENCE TO BE DEMO'D
EXISTING 10" WATER (ABANDONED)
APN: 331-110-038 LAND USE: SP 260 ZONING: SP 260
N00°06'56"E 329.99'
PROPOSED BUILDING
FEMA FLOOD ZONE "X"
APN: 331-150-041 LAND USE: SP 260 ZONING: SP 260
APN: 331-100-014 LAND USE: CC ZONING: CC
EXISTING WELL TO BE BACKFILLED & ABANDONED
APN: 331-100-015 LAND USE: CC ZONING: CC
17' DEDICATION
APPROXIMATE FEMA FLOOD ZONE LINE
N89°17'00"W 691.69'
APPROXIMATE FEMA FLOOD ZONE LINE
EXISTING DIRT ROAD
CITY LIMIT LINE
BUILDING SETBACK LINE
INTERFERING PORTIONS OF EXISTING FENCE TO BE REMOVED
BUILDING SETBACK LINE
TRUMBLE ROAD
N01°03'18"E 654.99'
APN: 331-100-019 LAND USE: CC ZONING: CC
PROPOSED BUILDING
PROPOSED BUILDING
MB 11/38
PARCEL 2
21.79 AC GROSS
20.29 AC NET
EXISTING 18" RAW WATER
APN: 331-150-042 LAND USE: SP 260 ZONING: SP 260
19' DEDICATION
PROPOSED BUILDING
EXISTING POWER POLE TO BE REMOVED
APN: 331-100-021 LAND USE: CC ZONING: CC
FEMA FLOOD ZONE "X"
MB 11/38
24' DEDICATION
PROPOSED BUILDING
N89°17'04"W 150.00'
BUILDING SETBACK LINE
EXISTING DIRT ROAD
EXISTING FENCE TO BE REMOVED
EXISTING RESIDENCE TO BE DEMO'D
EXISTING POWER POLE TO BE REMOVED
9' DEDICATION
APN: 331-150-024 LAND USE: BP ZONING: BP
24' DEDICATION
EXISTING POWER POLE TO BE REMOVED
APN: 331-100-017 LAND USE: CC ZONING: CC
EXISTING FENCE
N89°17'04"W 1030.23'
N89°17'18"W 621.14'
N01°41'18"E 59.98'
APN: 331-100-033 LAND USE: CC ZONING: CC
APN: 331-140-019 LAND USE: BP ZONING: BP
APN: 331-100-034 LAND USE: CC ZONING: CC
APN: 331-110-042 LAND USE: SP 260 ZONING: SP 260
FEMA FLOOD ZONE "A"
N71°52'34"E 45.00'
APN: 331-140-026 LAND USE: SP 260 ZONING: SP 260
N89°17'18"W 601.01'
FEMA FLOOD ZONE "A"
EXISTING FLOOD CONTROL CHANNEL
EXISTING FLOOD CONTROL CHANNEL

PRELIMINARY

CITY OF MENIFEE

CORE 5 - MENIFEE COMMERCE CENTER
TENTATIVE PARCEL MAP NO. 38156
SCHEDULE "E"

SCALE:	1"=100'
DATE:	4/6/22
DESIGNED:	EA
CHECKED:	SRH
PLN CK REF:	
F.B.	

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET
RIVERSIDE, CA. 92506
PH. (951) 686-1070
FAX (951) 788-1256

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Appendix I: Noise and Vibration Analysis

Ethanac Business Park

NOISE AND VIBRATION ANALYSIS

CITY OF MENIFEE

PREPARED BY:

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blawson@urbanxroads.com
(949) 584-3148

AUGUST 28, 2024

15796-03 NA

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
INCE	Institute of Noise Control Engineering
L_{eq}	Equivalent continuous (average) sound level
L_{max}	Maximum level measured over the time interval
L_{min}	Minimum level measured over the time interval
mph	Miles per hour
OPR	Governor's Office of Planning and Research
PPV	Peak particle velocity
Project	Ethanac Business Park
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
VdB	Vibration Decibels

EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the potential noise impacts and the necessary noise mitigation measures, if any, for the proposed Ethanac Business Park development ("Project"). The proposed Project is to consist of a 264,710-square-foot warehouse building. This study has been prepared to satisfy applicable City of Menifee standards and thresholds of significance based on guidance provided by Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (State CEQA Guidelines). (1)

The results of this Noise and Vibration Analysis are summarized below based on the significance criteria in Section 4 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA before and after any required mitigation measures.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Off-Site Traffic Noise	7	*Less Than Significant*	-
Operational Noise	9	*Less Than Significant*	-
Construction Noise	10	*Less Than Significant*	-
Nighttime Concrete Pour Noise		*Less Than Significant*	-
Construction Vibration		*Less Than Significant*	-

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1 INTRODUCTION

This Noise and Vibration Analysis has been completed to determine the noise impacts associated with the development of the proposed Ethanac Business Park project ("Project"). This study briefly describes the proposed Project, provides information regarding noise fundamentals, sets out the local regulatory setting, presents the study methods and procedures for transportation related CNEL traffic noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term stationary-source operational noise and short-term construction noise and vibration impacts.

1.1 SITE LOCATION

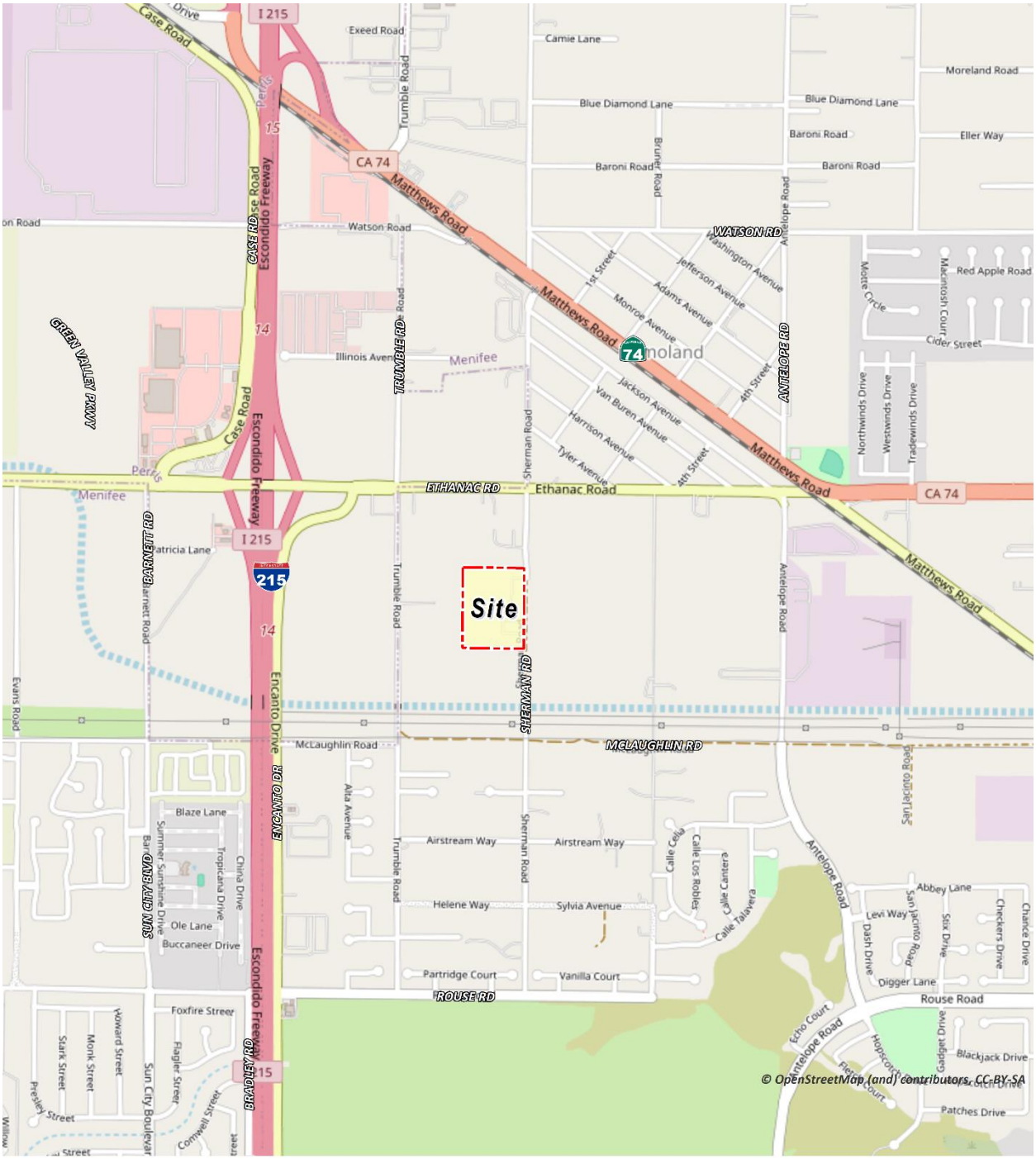
The proposed Project is located south of Ethanac Road, east of Trumble Road, west of Sherman Road, and north of McLaughlin Road in the City of Menifee as shown on Exhibit 1-A.

1.2 PROJECT DESCRIPTION

The Project includes the development of a 264,710-square-foot warehouse building which includes 10,000 square feet of office support space on an 11.47-acre site (see Exhibit 1-B). It is our understanding the proposed Project Planning Application consists of a Plot Plan (PLN23-0171), General Plan Amendment (PLN23-0173) to change the land use from Heavy Industrial to Menifee North Specific Plan, Change of Zone (PLN23-0174) to change zoning from Heavy Industrial to Menifee North Specific Plan, and a Specific Plan Amendment (PLN23-0175) to modify the boundary of the existing Menifee North Specific Plan to include the proposed Project and designate it as Planning Area 2 (Industrial). The proposed Project is anticipated to have an Opening Year of 2026.

The on-site Project-related noise sources are expected to include: loading dock activity, roof-top air conditioning units, parking lot vehicle movements, diesel fire pump, trash enclosure activity, and truck movements. This Noise and Vibration Analysis is intended to describe noise level impacts associated with the expected typical operational activities at the Project site. To present a conservative approach, this report assumes the Project would operate 24-hours daily for seven days per week. In addition, to support the Project development, there will be paving for off-site improvements associated with roadway construction and utility installation which includes widening Sherman Road from Ethanac Road to the southern end of the Project.

EXHIBIT 1-A: LOCATION MAP



LEGEND:

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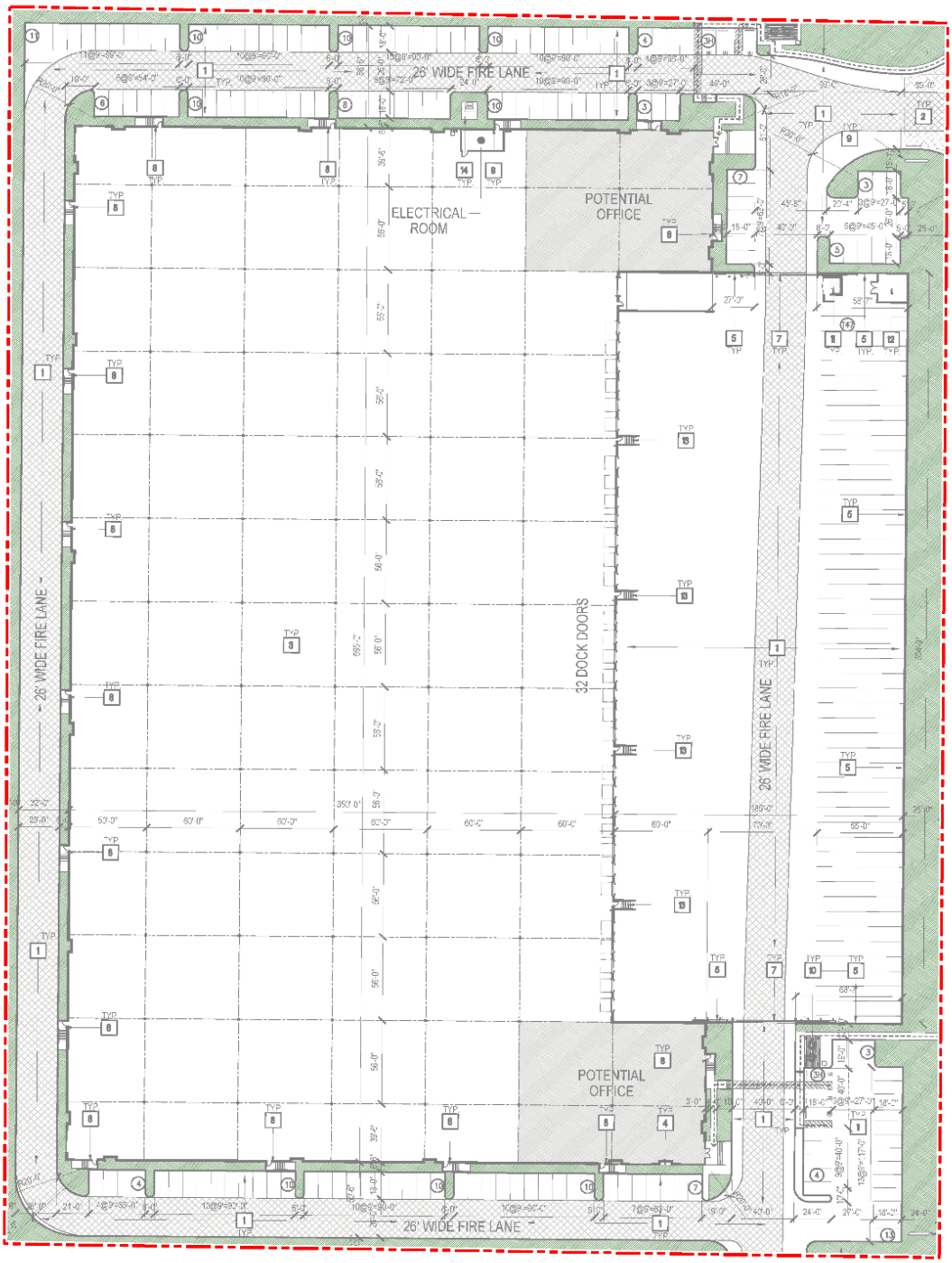
Site Boundary

EXHIBIT 1-B: SITE PLAN



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LEGEND:

Site Boundary

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2 FUNDAMENTALS

Noise is simply defined as *unwanted sound*. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (2) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA

at approximately 1,000 feet, which can cause serious discomfort. (3) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used metric is the equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the "average" noise levels within the environment.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when noise can become more intrusive. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of Menifee relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors.

2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (2)

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually

sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (4)

2.3.3 ATMOSPHERIC EFFECTS

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (2)

2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby residents. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of-sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The Federal Highway Administration (FHWA) does not consider the planting of vegetation to be a noise abatement measure. (5)

2.4 NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements.

2.5 NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must block the line-of-sight path of sound from the noise source.

2.6 LAND USE COMPATIBILITY WITH NOISE

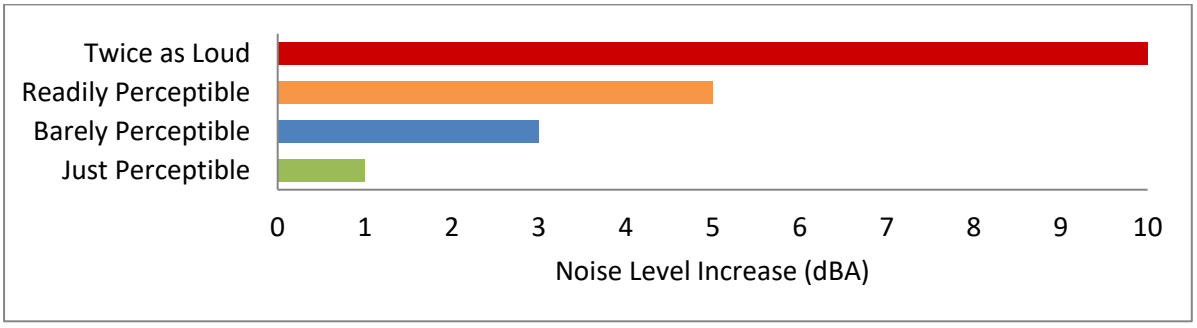
Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (6)

2.7 COMMUNITY RESPONSE TO NOISE

Approximately sixteen percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints may occur. Twenty to thirty percent of the population will not complain even in very severe noise environments. (7 pp. 8-6) Thus, a variety of reactions can be expected from people exposed to any given noise environment.

Surveys have shown that community response to noise varies from no reaction to vigorous action for newly introduced noises averaging from 10 dB below existing to 25 dB above existing. (8) According to research originally published in the Noise Effects Handbook (7), the percentage of high annoyance ranges from approximately 0 percent at 45 dB or less, 10 percent are highly annoyed around 60 dB, and increases rapidly to approximately 70 percent being highly annoyed at approximately 85 dB or greater. Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. A change of 3 dBA is considered barely perceptible, and changes of 5 dBA are considered readily perceptible. (4)

EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION



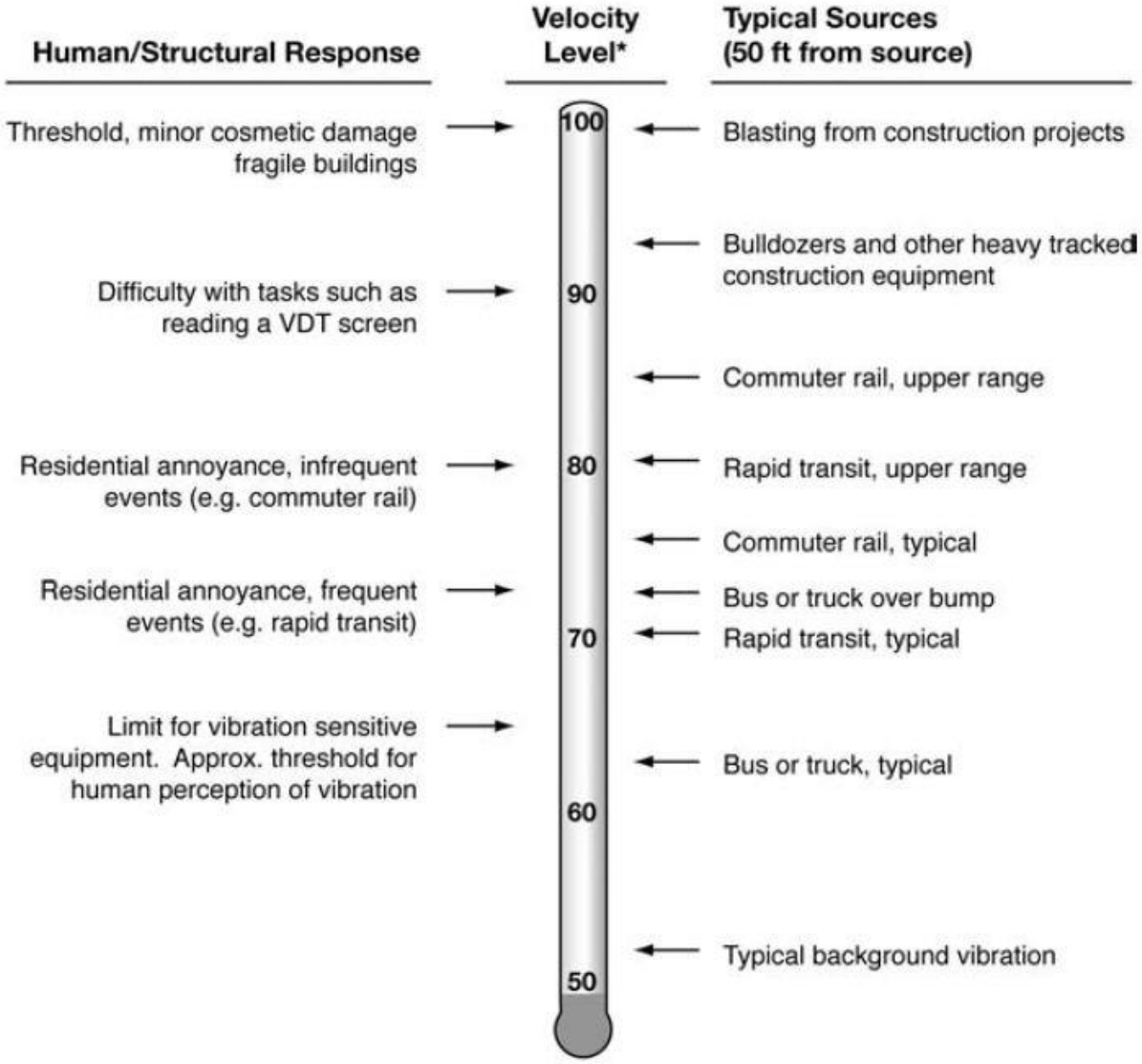
2.8 VIBRATION

Per the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual*, vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

Additionally, in contrast to airborne noise, ground-borne vibration outdoors is not a common environmental problem and annoyance from ground-borne vibration is almost exclusively an indoor phenomenon (8). Therefore, the effects of vibrations should only be evaluated at a structure and the effects of the building structure on the vibration should be considered. Wood-frame buildings, such as typical residential structures, are more easily excited by ground vibration than heavier buildings. In contrast, large masonry buildings with spread footings have a low response to ground vibration (8). In general, the heavier a building is, the lower the response will be to the incident vibration energy. However, all structurers reduce vibration levels due to the coupling of the building to the soil. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal (8). The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body (8). However, the RMS amplitude and PPV are related mathematically, and the RMS amplitude of equipment is typically calculated from the PPV reference level. The RMS amplitude is approximately 70% of the PPV (9). Thus, either can be used in the description of vibration impacts.

While not universally accepted, vibration decibel notation (VdB) is another vibration notation developed and used by the FTA in their guidance manual to describe vibration levels and provide a background of common vibration levels and set vibration limits. (8) Decibel notation (VdB) serves to reduce the range of numbers used to describe vibration levels and is used in this report to describe vibration levels. As stated in the FTA guidance manual, the background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



** RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second*

Source: Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual.

3 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR) (10) OPR identifies suggested land use noise compatibility levels as part of its General Plan Guidelines as shown on Exhibit 3-A. These suggested guidelines provide planners with a tool to gauge the compatibility of land uses relative to existing and future noise levels. The guidelines identify normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable noise levels for various land uses.

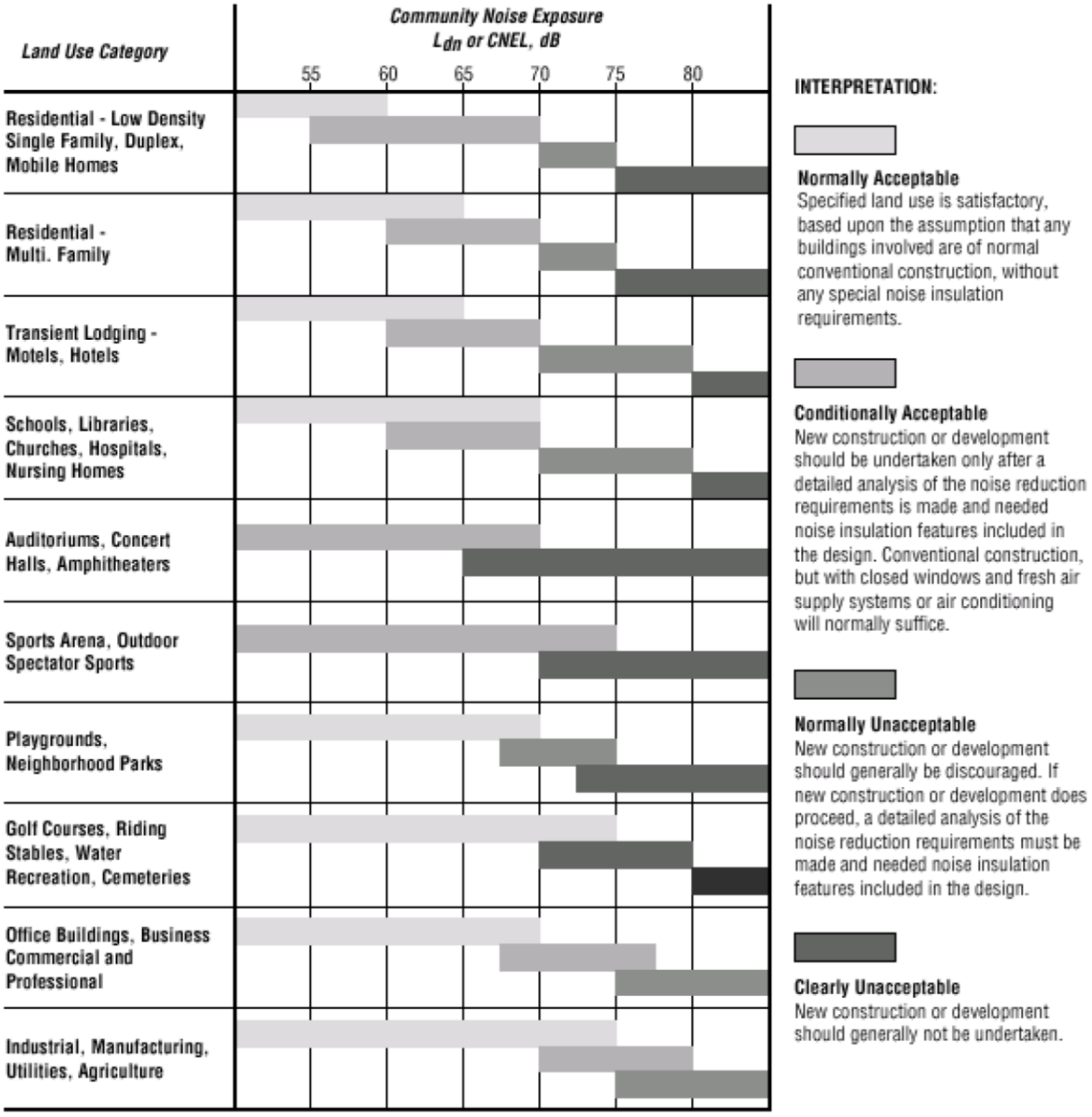
The land use compatibility guidelines are intended to be an advisory resource when considering changes in land use and policies, such as zoning modifications. The Project industrial land use is considered *normally acceptable* unmitigated exterior noise levels of less than 75 dBA CNEL. In addition, the State through the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

3.2 CITY OF MENIFEE GENERAL PLAN NOISE ELEMENT

The City of Menifee has adopted a Noise Element of the General Plan to control and abate environmental noise, and to protect the citizens of City of Menifee from excessive exposure to noise (11). The Noise Element specifies the maximum allowable unmitigated exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports and railroads. In addition, the Noise Element identifies several polices to minimize the impacts of excessive noise levels throughout the community and establishes noise level requirements for all land uses. To protect City of Menifee residents from excessive noise, the Noise Element contains the following goal related to the Project:

N-1 Noise-sensitive land uses are protected from excessive noise and vibration exposure.

EXHIBIT 3-A: LAND USE NOISE COMPATIBILITY CRITERIA



The noise policies specified in the City of Menifee Noise Element provide the guidelines necessary to satisfy this goal. Policy N-1.2 states that new developments are required to *comply with the noise standards of local, regional, and state building code regulations, including but not limited to the city's Municipal Code, Title 24 of the California Code of Regulations, the California Green Building Code, and subdivision and development codes.* In addition, the Noise Element provides Policy N-1.11 to *discourage the siting of noise-sensitive uses in areas in excess of 65 dBA CNEL without appropriate mitigation* (11).

3.3 OPERATIONAL NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as Ethanac Business Park Project, stationary-source (operational) noise such as the expected loading dock activity, roof-top air conditioning units, parking lot vehicle movements, diesel fire pump, trash enclosure activity, and truck movements are typically evaluated against standards established under a jurisdiction's Development Code or General Plan. The City of Menifee Municipal Code, Section 9.210.060 Noise Control Regulations, included in Appendix 3.1 outlines the performance standards to control the non-transportation noise impacts. Table 9.210.060-1 establishes the exterior noise level criteria for noise-sensitive residential properties affected by stationary noise sources. For residential properties, the exterior noise level shall not exceed 65 dBA L_{eq} during daytime hours (7:00 a.m. to 10:00 p.m.) and shall not exceed 45 dBA L_{eq} during the nighttime hours (10:00 p.m. to 7:00 a.m.). (11)

TABLE 3-1: OPERATIONAL NOISE STANDARDS

Jurisdiction	Land Use	Time Period	Noise Level Standard (dBA)[1,2]
City of Menifee	Residential	Daytime (7:01 a.m. - 10:00 p.m.)	65 dBA L_{eq}
		Nighttime (10:01 p.m. - 7:00 a.m.)	45 dBA L_{eq}

[1] City of Menifee Development Code, Table 9.210.060-1 (Appendix 3.1).
[2] L_{eq} represents a steady state sound level containing the same total energy as a time varying signal over a given period.

3.4 CONSTRUCTION NOISE STANDARDS

To control noise impacts associated with the construction of the proposed Project, the City of Menifee has established limits to the hours of operation. Section 9.210.060[C] of the City's Development Code indicates that private construction projects, located within one-quarter of a mile from an occupied residence, are considered exempt from the Development Code noise standards if they occur within the permitted hours of 6:30 a.m. and 7:00 p.m., with no activity allowed on Sundays and nationally recognized holidays (12). However, neither the City of Menifee General Plan Noise Element or Development Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a *substantial temporary or permanent increase in ambient noise levels*. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* is used for analysis of daytime construction impacts, as discussed below.

According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for

construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA L_{eq} as a reasonable threshold to assess construction noise level impacts based on the FTA detailed analysis construction noise criteria with a nighttime exterior construction noise level of 70 dBA L_{eq}. (8 p. 179)

3.5 VIBRATION STANDARDS

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. (8) To analyze vibration impacts originating from the operation and construction of the Ethanac Business Park, vibration-generating activities are appropriately evaluated against standards established under a City's Municipal Code, if such standards exist. However, the City of Menifee does not identify specific vibration level limits. Therefore, for analysis purposes, the Caltrans *Transportation and Construction Vibration Guidance Manual*, (9 p. 38) Table 19, vibration damage are used in this noise study to assess potential temporary construction-related impacts at adjacent building locations. The nearest noise sensitive buildings adjacent to the Project site can best be described as "older residential structures" with a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec).

3.6 PERRIS VALLEY AIRPORT

The Perris Valley Airport is located approximately 2.3 miles northwest of the Project Site. This places the Project site outside the Perris Valley Airport Influence Area and the Project is not subject to the *Riverside County Airport Land Use Compatibility Plan Policy Document* (RC ALUCP). The RC ALUCP outlines policies for determining the land use compatibility planning in the vicinity of airports throughout Riverside County. According to Table 2B of the RC ALUCP *Supporting Compatibility Criteria: Noise* shown on Exhibit 3-B, the planned Project *warehousing* land use is considered *clearly acceptable* with exterior noise levels of less than 60 dBA CNEL, *normally acceptable* with exterior noise levels ranging from 60-65 dBA CNEL, and *marginally acceptable* with exterior noise levels above 65 dBA CNEL. (13)

The noise contour boundaries used to determine the potential aircraft-related noise impacts at the Project site are found on Map PV-3 of the RC ALUCP. As shown on Exhibit 3-C, the Project site is located outside the 55 dBA CNEL noise level contour boundaries and is considered *clearly acceptable.* Therefore, based on the RC ALUCP compatibility criteria, *the activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.*

EXHIBIT 3-B: RC ALUCP SUPPORTING COMPATIBILITY CRITERIA: NOISE

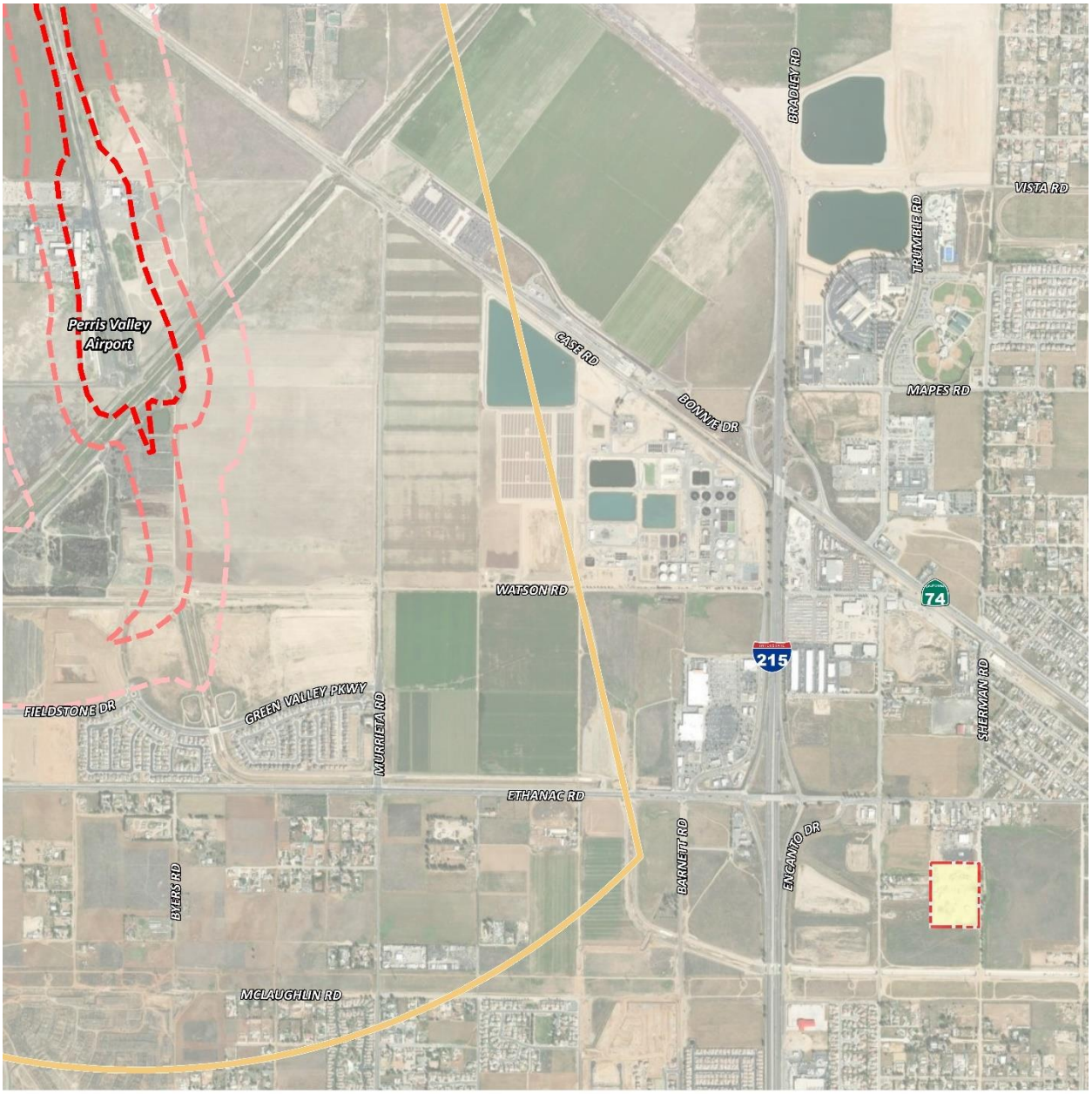
Land Use Category	CNEL (dB) 50–55	55–60	60–65	65–70	70–75
Residential *					
single-family, nursing homes, mobile homes	++	o	–	– –	– –
multi-family, apartments, condominiums	++	+	o	– –	– –
Public					
schools, libraries, hospitals	+	o	–	– –	– –
churches, auditoriums, concert halls	+	o	o	–	– –
transportation, parking, cemeteries	++	++	++	+	o
Commercial and Industrial					
offices, retail trade	++	+	o	o	–
service commercial, wholesale trade, warehousing, light industrial	++	++	+	o	o
general manufacturing, utilities, extractive industry	++	++	++	+	+
Agricultural and Recreational					
cropland	++	++	++	++	+
livestock breeding	++	+	o	o	–
parks, playgrounds, zoos	++	+	+	o	–
golf courses, riding stables, water recreation	++	++	+	o	o
outdoor spectator sports	++	+	+	o	–
amphitheaters	+	o	–	– –	– –

Land Use Acceptability		Interpretation/Comments
++	*Clearly Acceptable*	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+	*Normally Acceptable*	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
o	*Marginally Acceptable*	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.
–	*Normally Unacceptable*	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
– –	*Clearly Unacceptable*	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

* Subtract 5 dB for low-activity outlying airports (Chiriaco Summit and Desert Center)

Source: Riverside County Airport Land Use Compatibility Plan, Table 2B.

EXHIBIT 3-C: PERRIS VALLEY AIRPORT (PV) NOISE CONTOURS



Source: Riverside County Airport Land Use Compatibility Plan Policy Document (July 2010)

4 SIGNIFICANCE CRITERIA

The following significance criteria are based on currently adopted guidance provided by Appendix G of the State CEQA Guidelines. (1) For the purposes of this report, impacts would be potentially significant if the Project results in or causes:

A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

B. Generation of excessive ground-borne vibration or ground-borne noise levels?

C. 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?

4.1 NOISE LEVEL INCREASES (THRESHOLD A)

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing baseline ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes *that there is no single noise increase that renders a noise impact significant.* (14) This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment. In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will typically be judged.

4.1.1 NOISE-SENSITIVE RECEIVERS

The Federal Interagency Committee on Noise (FICON) (15) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (L_{eq}).

As previously stated, the approach used in this noise study recognizes *that there is no single noise increase that renders a noise impact significant*, based on a 2008 California Court of Appeal ruling on Gray v. County of Madera. (14) For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria may be exceeded. Therefore, for this analysis, a *readily perceptible* 5 dBA or greater project-related noise level increase is considered a significant impact when the without project noise levels are below 60 dBA. Per the FICON, in areas where the without project noise levels

range from 60 to 65 dBA, a 3 dBA *barely perceptible* noise level increase appears to be appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance. The FICON guidance provides an established source of criteria to assess the impacts of substantial temporary or permanent increase in baseline ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without Project (baseline) noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA or *readily perceptible*, 3 dBA or *barely perceptible*, and 1.5 dBA depending on the underlying without Project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance at noise sensitive receiver locations are consistent with guidance provided by both the Federal Highway Administration (4 p. 9) and Caltrans (16 p. 2_48).

4.1.2 NON-NOISE-SENSITIVE RECEIVERS

The City of Menifee General Plan Noise Element, Table N-b3, *Land Use Compatibility for Community Noise Environments* was used to establish the satisfactory noise levels of significance for non-noise-sensitive land uses in the Project study area. As previously shown on Exhibit 3-A, the *normally acceptable* exterior noise level for non-noise-sensitive land use is 70 dBA CNEL. (11) To determine if Project-related traffic noise level increases are significant at off-site non-noise-sensitive land uses, a *barely perceptible* 3 dBA criteria is used. When the without Project noise levels are greater than the *normally acceptable* 70 dBA CNEL land use compatibility criteria, a *barely perceptible* 3 dBA or greater noise level increase is considered a significant impact since the noise level criteria is already exceeded. The noise level increases used to determine significant impacts for non-noise-sensitive land uses is generally consistent with the FICON noise level increase thresholds for noise-sensitive land uses but instead rely on the City of Menifee General Plan Noise Element, Table N-b3, *Land Use Compatibility for Community Noise Environments normally acceptable* 70 dBA CNEL exterior noise level criteria.

4.2 VIBRATION (THRESHOLD B)

As described in Section 3.4, the vibration impacts originating from the construction of Ethanac Business Park, vibration-generating activities are appropriately evaluated using the Caltrans vibration damage thresholds to assess potential temporary construction-related impacts at adjacent building locations. The nearest noise sensitive buildings adjacent to the Project site can best be described as “older residential structures” with a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec).

4.3 CEQA GUIDELINES NOT FURTHER ANALYZED (THRESHOLD C)

The closest airport which would require additional noise analysis under CEQA Appendix G Guideline C is the Perris Valley Airport. As previously described in Section 3.5, the Project is located outside the 55 dBA CNEL noise level contours of the Perris Valley Airport. As shown on Exhibit 3-C, the Project site is located outside the 55 dBA CNEL noise level contour boundaries and is considered *clearly acceptable.* Therefore, based on the RC ALUCP compatibility criteria, the potential impacts under CEQA Appendix G Guideline C, are *less than significant* and are not further analyzed in this noise study.

4.4 SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed Project. Table 4-1 shows the significance criteria summary matrix that includes the allowable criteria used to identify potentially significant incremental noise level increases.

TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Receiving Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site	Noise-Sensitive[1]	If ambient is < 60 dBA L_{eq}[1]	≥ 5 dBA L_{eq} Project increase	
		If ambient is 60 - 65 dBA L_{eq}[1]	≥ 3 dBA L_{eq} Project increase	
		If ambient is > 65 dBA L_{eq}[1]	≥ 1.5 dBA L_{eq} Project increase	
	Non-Noise Sensitive[2]	if ambient is > 70 dBA CNEL	≥ 3 dBA CNEL Project increase	
Operational	Noise-Sensitive[1]	Exterior Noise Level Limit[3]	65 dBA L_{eq}	45 dBA L_{eq}
		If ambient is < 60 dBA L_{eq}[1]	≥ 5 dBA L_{eq} Project increase	
		If ambient is 60 - 65 dBA L_{eq}[1]	≥ 3 dBA L_{eq} Project increase	
		If ambient is > 65 dBA L_{eq}[1]	≥ 1.5 dBA L_{eq} Project increase	
Construction	Noise-Sensitive[1]	Noise Level Threshold[5]	80 dBA L_{eq}	70 dBA L_{eq}
		Vibration Level Threshold[7]	0.3 PPV (in/sec)	

[1] FICON, 1992.
[2] City of Menifee General Plan Noise Element, Table N-b3.
[3] City of Menifee Development Code, Table 9.210.060-1 (Appendix 3.1).
[4] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.
[5] Caltrans Transportation and Construction Vibration Manual, April 2020 Table 19.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

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5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at five locations in the Project study area. The noise level measurement locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, January 31, 2024. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the equivalent daytime and nighttime hourly noise levels. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (17)

5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources*. (2) Further, FTA guidance states, t*hat it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community*. (8)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (8) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels

and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS

5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the equivalent or energy average hourly sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location.

TABLE 5-1: AMBIENT NOISE LEVEL MEASUREMENTS

Location[1]	Description	Energy Average Noise Level (dBA L_{eq})[2]	
		Daytime	Nighttime
L1	Located northeast of the site near the residence at 27555 Ethanac Rd.	70.2	66.8
L2	Located northeast of the site near the residence at 27625 Ethanac Rd.	71.5	67.6
L3	Located southeast of the site near the residence at 26400 Dawson Rd.	52.5	51.2
L4	Located south of the site near the residence at 26510 Sherman Rd.	56.1	55.5
L5	Located west of the site near the residence at 26228 Trumble Rd.	58.9	58.2

[1] See Exhibit 5-A for the noise level measurement locations.
[2] Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Table 5-1 provides the equivalent noise levels used to describe the daytime, evening, and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L_1, L_2, L_5, L_8, L_{25}, L_{50}, L_{90}, L_{95}, and L_{99} percentile noise levels observed during the daytime and nighttime periods.

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6 TRAFFIC NOISE METHODS AND PROCEDURES

The following section outlines the methods and procedures used to estimate and analyze the future traffic noise environment. Consistent with the City of Menifee *Land Use Compatibility for Community Noise Environments* (see Exhibit 3-A), all transportation related noise levels are presented in terms of the 24-hour CNEL's. Unlike a simple arithmetic average noise level, CNEL represents the logarithmic summation of the equivalent hourly noise levels with evening and nighttime noise penalties recognizing that noise may have different impacts on people depending on when it occurs.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (18) This methodology is commonly used to describe the off-site traffic noise levels throughout southern California and is consistent with the County of Riverside Office of Industrial Hygiene *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures*, which specifically requires the FHWA RD-77-108 model to be used in analysis within the County's jurisdiction. (19) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL) by vehicle type. REMEL represents the maximum sound level (L_{max}) of individual vehicle "pass by" events by vehicle type when measured at a "reference distance" of 50 feet from the center of the travel lane.

In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (20) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (21)

6.1.1 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table 6-1 identifies the eight off-site study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of Menifee General Plan Circulation Element, and the vehicle speeds. The ADT volumes used in this study area presented on Table 6-2 are based on *Ethanac Business Park Traffic Analysis*, prepared by Urban Crossroads, Inc. (22)

- Existing
- Existing plus Project
- Existing plus Ambient Growth plus Cumulative (EAC) without Project
- Existing plus Ambient Growth plus Cumulative (EAC) with Project
- Horizon Year (2045) without Project
- Horizon Year (2045) with Project

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Classification[1]	Receiving Land Use[2]	Distance from Centerline to Receiving Land Use (Feet)[3]	Vehicle Speed (mph)
1	Sherman Rd.	n/o Ethanac Rd.	Major	Sensitive	59'	40
2	Sherman Rd.	s/o Ethanac Rd.	Major	Non-Sensitive	59'	40
3	Sherman Rd.	n/o McLaughlin Rd.	Major	Non-Sensitive	59'	40
4	Ethanac Rd.	e/o Case Rd.	Expressway	Non-Sensitive	100'	50
5	Ethanac Rd.	w/o Encanto Dr.	Expressway	Non-Sensitive	100'	50
6	Ethanac Rd.	w/o Trumble Rd.	Expressway	Sensitive	100'	50
7	Ethanac Rd.	w/o Sherman Rd.	Expressway	Sensitive	100'	50
8	Ethanac Rd.	e/o Sherman Rd.	Expressway	Sensitive	100'	50

[1] City of Menifee General Plan Circulation Element.
[2] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing legal residential land uses.
[3] Distance to receiving land use is based upon the right-of-way distances.

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

ID	Roadway	Segment	Average Daily Traffic Volumes[1]					
			Existing		EAC (2026)		HY (2045)	
			Without Project	With Project	Without Project	With Project	Without Project	With Project
1	Sherman Rd.	n/o Ethanac Rd.	3,343	3,366	4,536	4,560	6,191	6,215
2	Sherman Rd.	s/o Ethanac Rd.	571	998	6,383	6,810	7,021	7,448
3	Sherman Rd.	n/o McLaughlin Rd.	571	600	5,479	5,508	6,027	6,056
4	Ethanac Rd.	e/o Case Rd.	25,176	25,206	54,504	54,534	59,954	59,984
5	Ethanac Rd.	w/o Encanto Dr.	17,983	18,351	40,008	40,376	44,008	44,376
6	Ethanac Rd.	w/o Trumble Rd.	16,580	16,948	39,536	39,904	43,490	43,858
7	Ethanac Rd.	w/o Sherman Rd.	14,556	14,924	37,115	37,484	40,827	41,195
8	Ethanac Rd.	e/o Sherman Rd.	12,074	12,109	27,686	27,721	30,454	30,490

[1] Ethanac Business Park Traffic Analysis, Urban Crossroads, Inc.

To describe the Project off-site traffic impacts, the receiving land use adjacent to each roadway segment is identified as a sensitive or non-sensitive land use. Sensitive land uses are limited to the existing noise sensitive residential uses based on a review of aerial imagery. It is expected that only the existing receivers will experience a change in the ambient noise levels over time. The ADT volumes vary for each roadway segment based on the existing traffic volumes and the combination of project traffic distributions. In addition, the off-site traffic noise analysis maintains a peak hour to average daily traffic (peak-to-daily) relationship of approximately 8.17%. (22) To quantify the off-site noise levels, the Project related truck trips were added to the heavy truck category in the FHWA noise prediction model. The addition of the Project related truck trips increases the percentage of heavy trucks in the vehicle mix. This approach recognizes that the FHWA noise prediction model is significantly influenced by the number of heavy trucks in the vehicle mix.

Table 6-3 provides the time of day (daytime, evening, and nighttime) vehicle splits. The daily Project truck trip-ends were assigned to the individual off-site study area roadway segments based on the Project truck trip distribution percentages documented in the *Ethanac Business Park Traffic Analysis*. Using the Project truck trips in combination with the Project trip distribution, Urban Crossroads, Inc. calculated the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments. Table 6-4 shows the traffic flow by vehicle type (vehicle mix) used for all without Project traffic scenarios.

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

Vehicle Type	Time of Day Splits[1]			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	75.50%	10.90%	13.60%	100.00%
Medium Trucks	94.12%	3.92%	1.96%	100.00%
Heavy Trucks	81.04%	2.38%	16.58%	100.00%

[1] Based on the April 9, 2024, 24-hour directional vehicle classification count collected on Ethanac Road west of Encanto Drive (Ethanac Business Park Traffic Analysis, Urban Crossroads, Inc.)
"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

TABLE 6-4: WITHOUT PROJECT VEHICLE MIX

Classification	Total % Traffic Flow			Total
	Autos	Medium Trucks	Heavy Trucks	
All Segments	94.35%	0.28%	5.37%	100.00%

1 Based on the April 9, 2024, 24-hour directional vehicle classification count collected on Ethanac Road west of Encanto Drive (Ethanac Business Park Traffic Analysis, Urban Crossroads, Inc.). Values rounded to the nearest one-hundredth. Vehicle mix percentage values rounded to the nearest one-hundredth.

Due to the added Project truck trips, the increase in Project traffic volumes and the distributions of trucks on the study area road segments, the percentage of autos, medium trucks and heavy trucks will vary for each of the traffic scenarios. This explains why the existing and future traffic volumes and vehicle mixes vary between seemingly identical study area roadway segments.

TABLE 6-5: EXISTING WITH PROJECT VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Sherman Rd.	n/o Ethanac Rd.	94.39%	0.28%	5.33%	100.00%
2	Sherman Rd.	s/o Ethanac Rd.	80.53%	2.97%	16.50%	100.00%
3	Sherman Rd.	n/o McLaughlin Rd.	94.63%	0.27%	5.10%	100.00%
4	Ethanac Rd.	e/o Case Rd.	94.36%	0.28%	5.36%	100.00%
5	Ethanac Rd.	w/o Encanto Dr.	93.58%	0.43%	5.99%	100.00%
6	Ethanac Rd.	w/o Trumble Rd.	93.52%	0.44%	6.04%	100.00%
7	Ethanac Rd.	w/o Sherman Rd.	93.40%	0.46%	6.13%	100.00%
8	Ethanac Rd.	e/o Sherman Rd.	94.37%	0.28%	5.35%	100.00%

[1] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-6: EACP (2026) WITH PROJECT VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Sherman Rd.	n/o Ethanac Rd.	94.38%	0.28%	5.34%	100.00%
2	Sherman Rd.	s/o Ethanac Rd.	92.33%	0.68%	7.00%	100.00%
3	Sherman Rd.	n/o McLaughlin Rd.	94.38%	0.28%	5.34%	100.00%
4	Ethanac Rd.	e/o Case Rd.	94.35%	0.28%	5.36%	100.00%
5	Ethanac Rd.	w/o Encanto Dr.	94.00%	0.35%	5.65%	100.00%
6	Ethanac Rd.	w/o Trumble Rd.	94.00%	0.35%	5.65%	100.00%
7	Ethanac Rd.	w/o Sherman Rd.	93.97%	0.36%	5.67%	100.00%
8	Ethanac Rd.	e/o Sherman Rd.	94.36%	0.28%	5.36%	100.00%

[1] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-7: HY (2045) WITH PROJECT VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Sherman Rd.	n/o Ethanac Rd.	94.37%	0.28%	5.35%	100.00%
2	Sherman Rd.	s/o Ethanac Rd.	92.50%	0.64%	6.86%	100.00%
3	Sherman Rd.	n/o McLaughlin Rd.	94.38%	0.28%	5.34%	100.00%
4	Ethanac Rd.	e/o Case Rd.	94.35%	0.28%	5.36%	100.00%
5	Ethanac Rd.	w/o Encanto Dr.	94.03%	0.34%	5.62%	100.00%
6	Ethanac Rd.	w/o Trumble Rd.	94.03%	0.35%	5.63%	100.00%
7	Ethanac Rd.	w/o Sherman Rd.	94.01%	0.35%	5.64%	100.00%
8	Ethanac Rd.	e/o Sherman Rd.	94.36%	0.28%	5.36%	100.00%

[1] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

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7 OFF-SITE TRAFFIC NOISE ANALYSIS

As described in Section 4.1, the off-site traffic noise impacts are evaluated based on noise level increases resulting from the Project. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. To assess the off-site transportation CNEL noise level impacts associated with development of the Project, noise contours were developed for each of the Project Scenarios outlined in the *Ethanac Business Park Traffic Analysis* prepared by Urban Crossroads, Inc. (22) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway.

7.1 TRAFFIC NOISE CONTOURS

Noise contours were used to assess the Project's incremental 24-hour dBA CNEL traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours included in Appendix 7.1 represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA CNEL noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. Tables 7-1 to 7-5 present a summary of the exterior traffic noise levels for each traffic condition.

TABLE 7-1: EXISTING WITHOUT PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sherman Rd.	n/o Ethanac Rd.	Sensitive	64.1	RW	RW	110
2	Sherman Rd.	s/o Ethanac Rd.	Non-Sensitive	56.4	RW	RW	RW
3	Sherman Rd.	n/o McLaughlin Rd.	Non-Sensitive	56.4	RW	RW	RW
4	Ethanac Rd.	e/o Case Rd.	Non-Sensitive	71.7	129	279	601
5	Ethanac Rd.	w/o Encanto Dr.	Non-Sensitive	70.2	103	223	480
6	Ethanac Rd.	w/o Trumble Rd.	Sensitive	69.9	RW	211	455
7	Ethanac Rd.	w/o Sherman Rd.	Sensitive	69.3	RW	194	417
8	Ethanac Rd.	e/o Sherman Rd.	Sensitive	68.5	RW	171	368

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-2: EXISTING WITH PROJECT NOISE CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sherman Rd.	n/o Ethanac Rd.	Sensitive	64.1	RW	RW	111
2	Sherman Rd.	s/o Ethanac Rd.	Non-Sensitive	62.8	RW	RW	91
3	Sherman Rd.	n/o McLaughlin Rd.	Non-Sensitive	56.5	RW	RW	RW
4	Ethanac Rd.	e/o Case Rd.	Non-Sensitive	71.7	129	279	601
5	Ethanac Rd.	w/o Encanto Dr.	Non-Sensitive	70.6	110	237	511
6	Ethanac Rd.	w/o Trumble Rd.	Sensitive	70.3	105	226	487
7	Ethanac Rd.	w/o Sherman Rd.	Sensitive	69.8	RW	209	450
8	Ethanac Rd.	e/o Sherman Rd.	Sensitive	68.5	RW	171	368

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-3: EAC (2026) WITHOUT PROJECT NOISE CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sherman Rd.	n/o Ethanac Rd.	Sensitive	65.4	RW	63	135
2	Sherman Rd.	s/o Ethanac Rd.	Non-Sensitive	66.9	RW	79	170
3	Sherman Rd.	n/o McLaughlin Rd.	Non-Sensitive	66.2	RW	71	153
4	Ethanac Rd.	e/o Case Rd.	Non-Sensitive	75.0	217	467	1005
5	Ethanac Rd.	w/o Encanto Dr.	Non-Sensitive	73.7	176	380	818
6	Ethanac Rd.	w/o Trumble Rd.	Sensitive	73.6	175	377	812
7	Ethanac Rd.	w/o Sherman Rd.	Sensitive	73.4	168	361	778
8	Ethanac Rd.	e/o Sherman Rd.	Sensitive	72.1	138	297	640

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-4: EACP (2026) WITH PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sherman Rd.	n/o Ethanac Rd.	Sensitive	65.4	RW	63	135
2	Sherman Rd.	s/o Ethanac Rd.	Non-Sensitive	68.0	RW	94	203
3	Sherman Rd.	n/o McLaughlin Rd.	Non-Sensitive	66.2	RW	71	154
4	Ethanac Rd.	e/o Case Rd.	Non-Sensitive	75.0	217	467	1005
5	Ethanac Rd.	w/o Encanto Dr.	Non-Sensitive	73.9	181	391	842
6	Ethanac Rd.	w/o Trumble Rd.	Sensitive	73.8	180	388	836
7	Ethanac Rd.	w/o Sherman Rd.	Sensitive	73.6	173	373	803
8	Ethanac Rd.	e/o Sherman Rd.	Sensitive	72.1	138	297	640

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-5: HY (2045) WITHOUT PROJECT NOISE CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sherman Rd.	n/o Ethanac Rd.	Sensitive	66.8	RW	77	166
2	Sherman Rd.	s/o Ethanac Rd.	Non-Sensitive	67.3	RW	84	181
3	Sherman Rd.	n/o McLaughlin Rd.	Non-Sensitive	66.6	RW	76	164
4	Ethanac Rd.	e/o Case Rd.	Non-Sensitive	75.4	231	497	1071
5	Ethanac Rd.	w/o Encanto Dr.	Non-Sensitive	74.1	188	405	872
6	Ethanac Rd.	w/o Trumble Rd.	Sensitive	74.1	186	401	865
7	Ethanac Rd.	w/o Sherman Rd.	Sensitive	73.8	179	385	829
8	Ethanac Rd.	e/o Sherman Rd.	Sensitive	72.5	147	317	682

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-6: HY (2045) WITH PROJECT NOISE CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sherman Rd.	n/o Ethanac Rd.	Sensitive	66.8	RW	77	167
2	Sherman Rd.	s/o Ethanac Rd.	Non-Sensitive	68.4	RW	99	213
3	Sherman Rd.	n/o McLaughlin Rd.	Non-Sensitive	66.6	RW	76	164
4	Ethanac Rd.	e/o Case Rd.	Non-Sensitive	75.4	231	497	1071
5	Ethanac Rd.	w/o Encanto Dr.	Non-Sensitive	74.3	193	415	895
6	Ethanac Rd.	w/o Trumble Rd.	Sensitive	74.2	191	412	888
7	Ethanac Rd.	w/o Sherman Rd.	Sensitive	74.0	184	396	853
8	Ethanac Rd.	e/o Sherman Rd.	Sensitive	72.5	147	317	682

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

7.2 EXISTING PROJECT NOISE LEVEL INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included in this report. This condition is provided solely for informational purposes and will not occur, since the Project will not be fully developed and occupied under Existing conditions. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 56.4 to 71.7 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project conditions will range from 56.5 to 71.7 dBA CNEL. Table 7-7 shows that the Project off-site traffic noise level impacts will range from 0.0 to 6.4 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level impacts due to the unmitigated Project-related traffic noise levels.

7.3 EAC (2026) PROJECT TRAFFIC NOISE LEVEL INCREASES

Table 7-3 shows the Existing plus Ambient Growth plus Cumulative (EAC) (2026) without Project conditions CNEL noise levels. The EAC (2026) without Project exterior noise levels are expected to range from 65.4 to 75.0 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-4 shows the EAC (2026) with Project conditions will range from 65.4 to 75.0 dBA CNEL. Table 7-8 shows that the EAC (2026) with Project off-site traffic noise level impacts will range from 0.0 to 1.1 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level impacts due to the unmitigated Project-related traffic noise levels.

7.4 HY (2045) PROJECT TRAFFIC NOISE LEVEL INCREASES

Table 7-5 shows the Horizon Year (2045) without Project conditions CNEL noise levels. The HY (2045) without Project exterior noise levels are expected to range from 66.6 to 75.4 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-6 shows the HY (2045) with Project conditions will range from 66.6 to 75.4 dBA CNEL. Table 7-9 shows that the HY (2045) Project traffic noise level impacts will range from 0.0 to 1.1 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level impacts due to unmitigated Project-related traffic noise levels.

TABLE 7-7: EXISTING WITH PROJECT TRAFFIC NOISE INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]			Incremental Noise Level Increase Threshold[2]	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Sherman Rd.	n/o Ethanac Rd.	Sensitive	64.1	64.1	0.0	3.0	No
2	Sherman Rd.	s/o Ethanac Rd.	Non-Sensitive	56.4	62.8	6.4	n/a	No
3	Sherman Rd.	n/o McLaughlin Rd.	Non-Sensitive	56.4	56.5	0.1	n/a	No
4	Ethanac Rd.	e/o Case Rd.	Non-Sensitive	71.7	71.7	0.0	3.0	No
5	Ethanac Rd.	w/o Encanto Dr.	Non-Sensitive	70.2	70.6	0.4	3.0	No
6	Ethanac Rd.	w/o Trumble Rd.	Sensitive	69.9	70.3	0.4	1.5	No
7	Ethanac Rd.	w/o Sherman Rd.	Sensitive	69.3	69.8	0.5	1.5	No
8	Ethanac Rd.	e/o Sherman Rd.	Sensitive	68.5	68.5	0.0	1.5	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

TABLE 7-8: EAC (2026) WITH PROJECT TRAFFIC NOISE INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]			Incremental Noise Level Increase Threshold[2]	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Sherman Rd.	n/o Ethanac Rd.	Sensitive	65.4	65.4	0.0	1.5	No
2	Sherman Rd.	s/o Ethanac Rd.	Non-Sensitive	66.9	68.0	1.1	n/a	No
3	Sherman Rd.	n/o McLaughlin Rd.	Non-Sensitive	66.2	66.2	0.0	n/a	No
4	Ethanac Rd.	e/o Case Rd.	Non-Sensitive	75.0	75.0	0.0	3.0	No
5	Ethanac Rd.	w/o Encanto Dr.	Non-Sensitive	73.7	73.9	0.2	3.0	No
6	Ethanac Rd.	w/o Trumble Rd.	Sensitive	73.6	73.8	0.2	1.5	No
7	Ethanac Rd.	w/o Sherman Rd.	Sensitive	73.4	73.6	0.2	1.5	No
8	Ethanac Rd.	e/o Sherman Rd.	Sensitive	72.1	72.1	0.0	1.5	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

TABLE 7-9: HY (2045) WITH PROJECT TRAFFIC NOISE INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]			Incremental Noise Level Increase Threshold[2]	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Sherman Rd.	n/o Ethanac Rd.	Sensitive	66.8	66.8	0.0	1.5	No
2	Sherman Rd.	s/o Ethanac Rd.	Non-Sensitive	67.3	68.4	1.1	n/a	No
3	Sherman Rd.	n/o McLaughlin Rd.	Non-Sensitive	66.6	66.6	0.0	n/a	No
4	Ethanac Rd.	e/o Case Rd.	Non-Sensitive	75.4	75.4	0.0	3.0	No
5	Ethanac Rd.	w/o Encanto Dr.	Non-Sensitive	74.1	74.3	0.2	3.0	No
6	Ethanac Rd.	w/o Trumble Rd.	Sensitive	74.1	74.2	0.1	1.5	No
7	Ethanac Rd.	w/o Sherman Rd.	Sensitive	73.8	74.0	0.2	1.5	No
8	Ethanac Rd.	e/o Sherman Rd.	Sensitive	72.5	72.5	0.0	1.5	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

8 RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

To describe the potential off-site Project noise levels, five receiver locations in the vicinity of the Project site were identified. These five locations represent the nearest noise sensitive land uses near the Project site. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the Project boundary to each receiver location.

R1: Location R1 represents the existing noise sensitive residence at 27555 Ethanac Rd., approximately 755 feet northeast of the Project site. R1 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.

R2: Location R2 represents the existing noise sensitive residence at 27625 Ethanac Rd., approximately 1,014 feet northeast of the Project site. R2 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.

R3: Location R3 represents the existing noise sensitive residence at 26400 Dawson Rd., approximately 1,511 feet east of the Project site. R3 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.

R4: Location R4 represents the existing noise sensitive residence at 26510 Sherman Rd., approximately 1,255 feet south of the Project site. R4 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.

R5: Location R5 represents the existing noise sensitive residence at 26228 Trumble Rd., approximately 581 feet west of the Project site. R5 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.

EXHIBIT 8-A: RECEIVER LOCATIONS

9 OPERATIONAL NOISE ANALYSIS

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations, identified in Section 8, resulting from the operation of the proposed Ethanac Business Park Project. Exhibit 9-A identifies the noise source locations used to assess the operational noise levels with the planned 14-foot-high loading dock screenwall.

9.1 OPERATIONAL NOISE SOURCES

This operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities at the Project site. Consistent with similar warehouse uses, the Project business operations would primarily be conducted within the enclosed building, except for traffic movement, parking, as well as loading and unloading of trucks at designated loading bays. The on-site Project-related noise sources are expected to include: loading dock activity, roof-top air conditioning units, parking lot vehicle movements, diesel fire pump, trash enclosure activity, and truck movements.

9.2 REFERENCE NOISE LEVELS

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the Project. This section provides a detailed description of the reference noise level measurements shown on Table 9-1 used to estimate the Project operational noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with the loading dock activity, roof-top air conditioning units, parking lot vehicle movements, diesel fire pump, trash enclosure activity, and truck movements all operating at the same time. These sources of noise activity will likely vary throughout the day.

9.2.1 MEASUREMENT PROCEDURES

The reference noise level measurements presented in this section were collected using a Larson Davis LxT Type 1 precision sound level meter (serial number 01146). The LxT sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 200, was programmed in "slow" mode to record noise levels in "A" weighted form and was located at approximately five feet above the ground elevation for each measurement. The sound level meters and microphones were equipped with a windscreen during all measurements. The noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (17)

EXHIBIT 9-A: OPERATIONAL NOISE SOURCE LOCATIONS

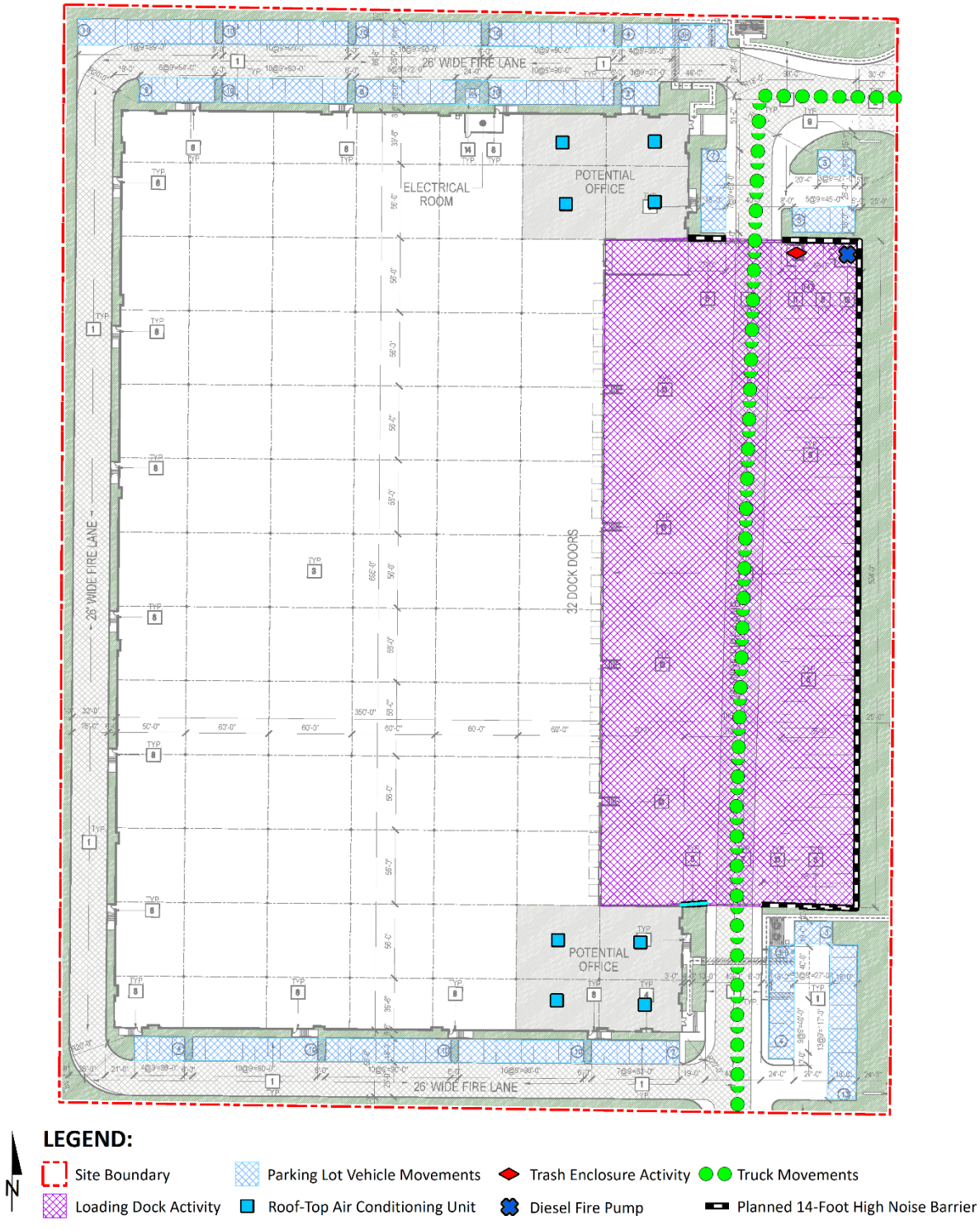

TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS

Reference Noise Source	Noise Source Height (Feet)	Min./ Hour[1]		Reference Noise Level (dBA L_{eq}) @ 50 Feet	Sound Power Level (dBA)[2]
		Day	Night		
Loading Dock Activity	8'	60	60	62.8	103.4
Roof-Top Air Conditioning Units	5'	39	28	57.2	88.9
Parking Lot Vehicle Movements	5'	60	60	52.6	81.1
Diesel Fire Pump	8'	60	60	49.8	78.3
Trash Enclosure Activity	5'	60	30	57.3	89.0
Truck Movements	8'	60	60	59.8	93.2

[1] Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site. "Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.

[2] Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source. Numbers may vary due to size differences between point and area noise sources.

9.2.2 LOADING DOCK ACTIVITY

The reference loading dock activities are intended to describe the typical operational noise source levels associated with the Project. This includes truck idling, deliveries, backup alarms, unloading/loading, docking including a combination of tractor trailer semi-trucks, two-axle delivery trucks, and background forklift operations. At a uniform reference distance of 50 feet, Urban Crossroads collected a reference noise level of 62.8 dBA L_{eq}. The loading dock activity noise level measurement was taken over a fifteen-minute period and represents multiple noise sources taken from the center of activity. The reference noise level measurement includes employees unloading a docked truck container included the squeaking of the truck's shocks when weight was removed from the truck, employees playing music over a radio, as well as a forklift horn and backup alarm. In addition, during the noise level measurement a truck entered the loading dock area and proceeded to reverse and dock in a nearby loading bay, adding truck engine, idling, air brakes noise, in addition to on-going idling of an already docked truck. Loading dock activity is estimated during all the daytime, evening, and nighttime hours.

9.2.3 ROOF-TOP AIR CONDITIONING UNITS

The noise level measurements describe a single mechanical roof-top air conditioning unit. The reference noise level represents a Lennox SCA120 series 10-ton model packaged air conditioning unit. At the uniform reference distance of 50 feet, the reference noise level is 59.2 dBA L_{eq}. Based on the typical operating conditions observed over a four-day measurement period, the roof-top air conditioning units are estimated to operate for and average 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. These operating conditions reflect peak summer cooling requirements with measured temperatures approaching 96 degrees Fahrenheit (°F) with average daytime temperatures of 82°F. For this noise analysis, the air conditioning units are expected to be located on the roof of the Project buildings.

9.2.4 PARKING LOT VEHICLE MOVEMENTS

To describe the on-site parking lot activity, a long-term 29-hour reference noise level measurement was collected in the center of activity within the staff parking lot of a warehouse distribution center. At 50 feet from the center of activity, the parking lot produced a reference noise level of 56.1 dBA L_{eq}. Parking activities are expected to take place during the full hour (60 minutes) throughout the daytime and evening hours. The parking lot noise levels are mainly due to cars pulling in and out of parking spaces in combination with car doors opening and closing.

9.2.5 DIESEL FIRE PUMP

The site plan shows that the Project may include the use of a fire pump. To describe the diesel pump, a reference noise level measurement was taken by Urban Crossroads, Inc. at the Coachella Valley Water District (CVWD) pump site number 5676, located at 38-130 Portola Avenue in the City of Palm Desert. The reference noise level measurement indicates that pump activity generates noise levels of at the uniform 50-foot reference distance is 49.8 dBA L_{eq} at 50 feet.

9.2.6 TRASH ENCLOSURE ACTIVITY

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, and trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project Site. The measured reference noise level at the uniform 50-foot reference distance is 59.3 dBA L_{eq} for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for the Project's proposed building. Typical trash enclosure activities are estimated to occur for 10 minutes per hour.

9.2.7 TRUCK MOVEMENTS

The truck movements reference noise level measurement was collected over a period of 1 hour and 28 minutes and represent multiple heavy trucks entering and exiting the outdoor loading dock area producing a reference noise level of 59.8 dBA L_{eq} at 50 feet. The noise sources included at this measurement location account for trucks entering and existing the Project driveways and maneuvering in and out of the outdoor loading dock activity area.

9.3 CADNAA NOISE PREDICTION MODEL

To fully describe the exterior operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels. Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the

ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source.

Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level (L_w) to describe individual noise sources. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_w) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment. The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the CadnaA noise analysis to account for mixed ground representing a combination of hard and soft surfaces. Appendix 9.1 includes the noise model inputs and calculations.

9.4 PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the Project operations that include loading dock activity, roof-top air conditioning units, parking lot vehicle movements, diesel fire pump, trash enclosure activity, and truck movements, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Table 9-2 shows the Project operational noise levels during the daytime hours of 7:00 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 30.7 to 38.5 dBA L_{eq}.

TABLE 9-2: DAYTIME PROJECT OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA Leq)				
	R1	R2	R3	R4	R5
Loading Dock Activity	37.2	34.7	31.6	34.2	20.8
Roof-Top Air Conditioning Units	31.8	30.4	27.8	28.6	30.0
Parking Lot Vehicle Movements	25.5	23.4	20.4	21.0	16.2
Trash Enclosure Activity	6.9	6.0	1.8	6.9	0.0
Truck Movements	13.6	12.1	14.7	15.7	5.8
Total (All Noise Sources)	**38.5**	**36.3**	**33.4**	**35.5**	**30.7**

[1] See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

Table 9-3 shows the Project operational noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. The nighttime hourly noise levels at the existing off-site receiver locations are expected to range from 28.6 to 38.1 dBA L_{eq}. The differences between the daytime and nighttime noise levels are largely related to the estimated duration of noise activity as outlined in Table 9-1.

Appendix 9.1 includes the detailed noise model inputs including the planned 14-foot-high loading dock screenwall.

TABLE 9-3: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA Leq)				
	R1	R2	R3	R4	R5
Loading Dock Activity	37.2	34.7	31.6	34.2	20.8
Roof-Top Air Conditioning Units	29.4	28.0	25.4	26.2	27.5
Parking Lot Vehicle Movements	25.5	23.4	20.4	21.0	16.2
Trash Enclosure Activity	5.9	5.0	0.8	5.9	0.0
Truck Movements	9.6	8.1	10.7	11.7	1.8
Total (All Noise Sources)	**38.1**	**35.8**	**32.8**	**35.0**	**28.6**

[1] See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

9.5 PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the City of Menifee exterior noise level standards at nearby noise-sensitive receiver locations. Table 9-4 shows the operational noise levels associated with the Project will not exceed the City of Menifee exterior noise level standards. Therefore, the stationary operational noise impacts are considered *less than significant* at the nearest noise-sensitive receiver locations.

TABLE 9-4: OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location[1]	Project Operational Noise Levels (dBA Leq)[2]		Noise Level Standards (dBA Leq)[3]		Noise Level Standards Exceeded?[4]	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	38.5	38.1	65	45	No	No
R2	36.3	35.8	65	45	No	No
R3	33.4	32.8	65	45	No	No
R4	35.5	35.0	65	45	No	No
R5	30.7	28.6	65	45	No	No

[1] See Exhibit 8-A for the receiver locations.
[2] Proposed Project operational noise levels as shown on Tables 9-2 and 9-3.
[3] City of Menifee Development Code, Table 9.210.060-1 (Appendix 3.1).
[4] Do the estimated Project operational noise source activities exceed the noise level standards?
[5] Project operational noise levels provided for informational purposes
"Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.

9.6 PROJECT OPERATIONAL NOISE LEVEL INCREASES

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations that may be potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (2) Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \ldots 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. Noise levels that would be experienced at receiver locations when Project-source noise is added to the daytime and nighttime ambient conditions are presented on Tables 9-5 and 9-6, respectively. As indicated on Tables 9-5 and 9-6, the Project will generate an operational noise level increase ranging from 0.0 to 0.1 dBA L_{eq} at the nearest receiver locations. The Project-related operational noise level increases will not exceed the operational noise level increase significance criteria presented in Table 4-1. Therefore, the incremental Project operational noise level increase is considered *less than significant* at all receiver locations.

TABLE 9-5: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	38.5	L1	70.2	70.2	0.0	1.5	No
R2	36.3	L2	71.5	71.5	0.0	1.5	No
R3	33.4	L3	52.5	52.6	0.1	5.0	No
R4	35.5	L4	56.1	56.1	0.0	5.0	No
R5	30.7	L5	58.9	58.9	0.0	5.0	No

[1] See Exhibit 8-A for the receiver locations.
[2] Total Project daytime operational noise levels as shown on Table 9-4.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed daytime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-1.

TABLE 9-6: NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	38.1	L1	66.8	66.8	0.0	1.5	No
R2	35.8	L2	67.6	67.6	0.0	1.5	No
R3	32.8	L3	51.2	51.3	0.1	5.0	No
R4	35.0	L4	55.5	55.5	0.0	5.0	No
R5	28.6	L5	58.2	58.2	0.0	5.0	No

[1] See Exhibit 8-A for the receiver locations.
[2] Total Project nighttime operational noise levels as shown on Table 9-4.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed nighttime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-1.

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10 CONSTRUCTION ANALYSIS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 10-A shows the construction noise source activity in relation to the nearest sensitive receiver locations previously described in Section 6. Section 9.210.060[C] of the City's Development Code indicates that private construction projects, located within one-quarter of a mile from an occupied residence, are considered exempt from the Development Code noise standards if they occur within the permitted hours of 6:30 a.m. and 7:00 p.m., with no activity allowed on Sundays and nationally recognized holidays (12). In addition, since neither the City of Menifee General Plan or Development Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts. The FTA considers a daytime exterior construction noise level of 80 dBA L_{eq} as a reasonable threshold for noise sensitive residential land use. (8 p. 179).

10.1 CONSTRUCTION NOISE LEVELS

The FTA *Transit Noise and Vibration Impact Assessment Manual* recognizes that construction projects are accomplished in several different stages and outlines the procedures for assessing noise impacts during construction. Each stage has a specific equipment mix, depending on the work to be completed during that stage. As a result of the equipment mix, each stage has its own noise characteristics; some stages have higher continuous noise levels than others, and some have higher impact noise levels than others. The Project construction activities are expected to occur in the following stages:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

10.2 CONSTRUCTION REFERENCE NOISE LEVELS

To describe construction noise activities, this construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. (23) The RCNM equipment database, provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. 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 (i.e., its loudest condition) during a construction operation.

EXHIBIT 10-A: CONSTRUCTION NOISE SOURCE LOCATIONS

10.3 CONSTRUCTION NOISE ANALYSIS

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. Consistent with FTA guidance for general construction noise assessment, Table 10-1 presents the combined noise levels for the loudest construction equipment, assuming all equipment operates at the same time. To account for the dynamic nature of construction activities, the CadnaA construction noise analysis evaluates the equipment as multiple moving point sources within the construction area (Project site boundary). Construction impacts are based on the highest noise level calculated at each receiver location. As shown on Table 10-2, the construction noise levels are expected to range from 47.0 to 62.0 dBA L_{eq} at the nearby receiver locations. Appendix 10.1 includes the detailed CadnaA construction noise model inputs.

TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS

Construction Stage	Reference Construction Equipmnet[1]	Reference Noise Level @ 50 Feet (dBA L_{eq})	Composite Reference Noise Level (dBA L_{eq})[2]	Reference Power Level (dBA L_w)[3]
Site Preparation	Tractor	80	84.0	115.6
	Backhoe	74		
	Grader	81		
Grading	Scraper	80	83.3	114.9
	Excavator	77		
	Dozer	78		
Building Construction	Crane	73	80.6	112.2
	Generator	78		
	Front End Loader	75		
Paving	Paver	74	77.8	109.5
	Dump Truck	72		
	Roller	73		
Architectural Coating	Man Lift	68	76.2	107.8
	Compressor (air)	74		
	Generator (<25kVA)	70		

[1] FHWA Road Construction Noise Model.
[2] Represents the combined noise level for all equipment assuming they operate at the same time consistent with FTA Transit Noise and Vibration Impact Assessment guidance.
[3] Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings.

TABLE 10-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})					
	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels[2]
R1	59.1	58.4	55.7	53.0	51.3	59.1
R2	57.2	56.5	53.8	51.1	49.4	57.2
R3	54.8	54.1	51.4	48.7	47.0	54.8
R4	56.1	55.4	52.7	50.0	48.3	56.1
R5	62.0	61.3	58.6	55.9	54.2	62.0

[1] Construction noise source and receiver locations are shown on Exhibit 10-A.
[2] Construction noise level calculations based on distance from the construction activity, which is measured from the Project site boundary to the nearest receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1.

10.4 CONSTRUCTION NOISE LEVEL COMPLIANCE

To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA L_{eq} is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA L_{eq} significance threshold during Project construction activities as shown on Table 10-3. Therefore, the noise impacts due to Project construction noise are considered *less than significant* at all receiver locations.

TABLE 10-3: CONSTRUCTION NOISE LEVEL COMPLIANCE

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})		
	Highest Construction Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	59.1	80	No
R2	57.2	80	No
R3	54.8	80	No
R4	56.1	80	No
R5	62.0	80	No

[1] Construction noise source and receiver locations are shown on Exhibit 10-A.
[2] Highest construction noise level calculations based on distance from the construction noise source activity to the nearest receiver locations as shown on Table 10-2.
[3] Construction noise level thresholds as shown on Table 4-1.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?

10.5 OFF-SITE ROADWAY AND UTILITY IMPROVEMENTS CONSTRUCTION NOISE ANALYSIS

To support the Project development, there will be paving for off-site improvements associated with roadway construction and utility installation which includes widening Sherman Road from Ethanac Road to the southern end of the Project. It is expected that the off-site construction activities would not take place at any one location for the entire duration of construction due to the nature of the linear construction activity. Construction noise from this off-site work would, therefore, be relatively short-term and the noise levels would be reduced as construction work moves linearly along the selected alignment and farther from sensitive uses. The loudest phase of construction associated with off-site roadway and utility improvements would likely be grading/excavation activities, which would generate similar noise levels when compared to the grading/excavation phase of the proposed project's on-site construction activities previously outlined on Table 10-1. Since the nearest receivers are located 581 feet from the Project construction activity, it is expected that the off-site construction activities will be located at similar or greater distances, the off-site construction activities are expected to be no greater than what was previously evaluated in the construction noise analysis outlined above in Sections 10.3 and 10.4. Therefore, the off-site roadway and utility improvement construction activities will be *less than significant.*

10.6 NIGHTTIME CONCRETE POUR NOISE ANALYSIS

It is our understanding that nighttime concrete pouring activities may occur as a part of Project building construction activities. Nighttime concrete pouring activities are often used to support reduced concrete mixer truck transit times and lower air temperatures than during the daytime hours and are generally limited to the actual building pad area. Since the nighttime concrete pours will take place outside the permitted City of Menifee Development Code, Section 9.210.060[C] of the City of Menifee Development Code indicates that construction activity is restricted to the hours within 6:30 a.m. and 7:00 p.m. with no activity allowed on Sundays and nationally recognized holidays. Consistent with Section 9.210.060[C][3] the Project Applicant will be required to obtain a construction-related exemption using the temporary use application for nighttime work from the City of Menifee Community Development Director. Any nighttime construction noise activities shall satisfy the noise limits outlined in Table 4-1.

10.6.1 NIGHTTIME CONCRETE POUR REFERENCE NOISE LEVEL MEASUREMENTS

To estimate the noise levels due to nighttime concrete pouring activities, sample reference noise level measurements were taken during a nighttime concrete pouring at a construction site. Urban Crossroads, Inc. collected short-term nighttime concrete pour reference noise level measurements during the noise-sensitive nighttime hours between 1:00 a.m. to 2:00 a.m. at 27334 San Bernardino Avenue in the City of Redlands. The reference noise levels describe the expected concrete pour noise sources that may include concrete mixer truck movements and pouring activities, concrete paving equipment, rear mounted concrete mixer truck backup alarms, engine idling, air brakes, generators, and workers communicating/whistling. To describe the nighttime concrete pour noise levels associated with the construction of the Ethanac Business Park, this analysis relies on reference sound pressure level of 67.7 dBA L_{eq} at 50 feet representing

a sound power level of 100.3 dBA L_w. While the Project noise levels will depend on the actual duration of activities and specific equipment fleet in use at the time of construction, the reference sound power level of 100.3 dBA L_w is used to describe the expected Project nighttime concrete pour noise activities.

10.6.2 NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

As shown on Table 10-4, the noise levels associated with the nighttime concrete pour activities are estimated to range from 37.2 to 46.7 dBA L_{eq} at the existing noise sensitive receiver locations. The analysis shows that the unmitigated nighttime concrete pour activities will not exceed the FTA 70 dBA L_{eq} nighttime residential noise level threshold at all the nearest noise sensitive receiver locations. Therefore, the noise impacts due to Project construction nighttime concrete pour noise activity are considered *less than significant* at all receiver locations with prior authorization for nighttime work from the City of Menifee. Appendix 10.3 includes the CadnaA nighttime concrete pour noise model inputs.

TABLE 10-4: NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

Receiver Location[1]	Concrete Pour Construction Noise Levels (dBA L_{eq})		
	Exterior Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	43.8	70	No
R2	41.9	70	No
R3	39.5	70	No
R4	40.8	70	No
R5	46.7	70	No

[1] Construction noise source and receiver locations are shown on Exhibit 10-A.
[2] Nighttime Concrete Pour noise model inputs are included in Appendix 10.2.
[3] Construction noise level thresholds as shown on Table 4-1.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?

10.7 CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Construction vibration is generally associated with pile driving and rock blasting. However, no pile driving, or rock blasting activities are planned for the Project. Ground vibration levels associated with various types of construction equipment are summarized in Table 10-5. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential for building damage using the following vibration assessment methods defined by the FTA. To describe the vibration impacts, the FTA provides the following equation:
$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

TABLE 10-5: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089
Vibratory Roller	0.210

Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Table 10-6 presents the expected Project related vibration levels at the nearby receiver locations. At distances ranging from 581 to 1,511 feet from Project construction activities, construction vibration velocity levels are estimated to range from 0.000 to 0.002 in/sec PPV. Based on maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec), the typical Project construction vibration levels will fall below the building damage thresholds at all the noise sensitive receiver locations. Therefore, the Project-related vibration impacts are considered *less than significant* during typical construction activities at the Project site. Moreover, the vibration levels reported at the sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.

TABLE 10-6: PROJECT CONSTRUCTION VIBRATION LEVELS

Location[1]	Distance to Const. Activity (Feet)[2]	Typical Construction Vibration Levels PPV (in/sec)[3]						Thresholds PPV (in/sec)[4]	Thresholds Exceeded?[5]
		Small bulldozer	Jack-hammer	Loaded Trucks	Large bulldozer	Vibratory Roller	Highest Vibration Level		
R1	755'	0.000	0.000	0.000	0.001	0.001	0.001	0.3	No
R2	1,014'	0.000	0.000	0.000	0.000	0.001	0.001	0.3	No
R3	1,511'	0.000	0.000	0.000	0.000	0.000	0.000	0.3	No
R4	1,255'	0.000	0.000	0.000	0.000	0.001	0.001	0.3	No
R5	581'	0.000	0.000	0.001	0.001	0.002	0.002	0.3	No

[1] Construction noise source and receiver locations are shown on Exhibit 10-A.
[2] Distance from receiver to limits of construction activity.
[3] Based on the Vibration Source Levels of Construction Equipment (Table 10-5).
[4] Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Table 19, p. 38.
[5] Does the peak vibration exceed the acceptable vibration thresholds?
"PPV" = Peak Particle Velocity

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11 REFERENCES

1. **California Natural Resources Agency.** *2024 California Environmental Quality Act (CEQA) Statue and Guidelines.* s.l. : Association of Environmental Professionals.
2. **California Department of Transportation Environmental Program.** *Technical Noise Supplement - A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., September 2013.
3. **Environmental Protection Agency Office of Noise Abatement and Control.** *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.* March 1974. EPA/ONAC 550/9/74-004.
4. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch.** *Highway Traffic Noise Analysis and Abatement Policy and Guidance.* December 2011.
5. **U.S. Department of Transportation Federal Highway Administration.** *Highway Noise Barrier Design Handbook.* 2001.
6. **U.S. Department of Transportation, Federal Highway Administration.** *Highway Traffic Noise in the United States, Problem and Response.* April 2000. p. 3.
7. **U.S. Environmental Protection Agency Office of Noise Abatement and Control.** *Noise Effects Handbook-A Desk Reference to Health and Welfare Effects of Noise.* October 1979 (revised July 1981). EPA 550/9/82/106.
8. **U.S. Department of Transportation, Federal Transit Administration.** *Transit Noise and Vibration Impact Assessment Manual, FTA Report No. 0123.* September 2018.
9. **California Department of Transportation.** *Transportation and Construction Vibration Guidance Manual.* April 2020.
10. **Office of Planning and Research.** *State of California General Plan Guidelines.* 2019.
11. **City of Menifee.** *General Plan Noise Element.* July 2015.
12. —. *Development Code, Chapter 9.215: Performance Standards.*
13. **Riverside County Airport Land Use Commission.** *Riverside County Airport Land Use Compatibility Plan Policy Document.* October 2004.
14. **California Court of Appeal.** *Gray v. County of Madera, F053661.* 167 Cal.App.4th 1099; - Cal.Rptr.3d, October 2008.
15. **Federal Interagency Committee on Noise.** *Federal Agency Review of Selected Airport Noise Analysis Issues.* August 1992.
16. **California Department of Transportation.** *Technical Noise Supplement.* November 2009.
17. **American National Standards Institute (ANSI).** *Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.*
18. **U.S. Department of Transportation, Federal Highway Administration.** *FHWA Highway Traffic Noise Prediction Model.* December 1978. FHWA-RD-77-108.
19. **County of Riverside, Office of Industrial Hygiene.** *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures.* April 2015.
20. **California Department of Transportation Environmental Program, Office of Environmental Engineering.** *Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction.* September 1995. TAN 95-03.

21. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report.* June 1995. FHWA/CA/TL-95/23.

22. **Urban Crossroads, Inc.** *Ethanac Business Park Traffic Analysis.* May, 2024.

23. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning.** *FHWA Roadway Construction Noise Model.* January, 2006.

12 CERTIFICATIONS

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Ethanac Business Park Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 584-3148.

Bill Lawson, P.E., INCE
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EDUCATION

Master of Science in Civil and Environmental Engineering
California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning
California Polytechnic State University, San Luis Obispo • June, 1992

PROFESSIONAL REGISTRATIONS

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009
AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012
PTP – Professional Transportation Planner • May, 2007 – May, 2013
INCE – Institute of Noise Control Engineering • March, 2004

PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America
ITE – Institute of Transportation Engineers

PROFESSIONAL CERTIFICATIONS

Certified Acoustical Consultant – County of San Diego • March, 2018
Certified Acoustical Consultant – County of Orange • February, 2011
FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013

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APPENDIX 3.1:

CITY OF MENIFEE DEVELOPMENT CODE

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TITLE 9: PLANNING AND ZONING

ARTICLE 4: SITE DEVELOPMENT REGULATIONS AND PERFORMANCE STANDARDS

Chapter 9.210 Performance Standards

9.210.060 Noise Control Regulations AG

A. **Intent**. At certain levels, sound becomes noise and may jeopardize the health, safety or general welfare of city residents and degrade their quality of life. Pursuant to its police power, the City Council hereby declares that noise shall be regulated in the manner described herein. This chapter is intended to establish citywide standards regulating noise. This chapter is not intended to establish thresholds of significance for the purpose of any analysis required by the California Environmental Quality Act (CEQA), and no such thresholds are hereby established.

B. **General Exemptions**. Sound emanating from the following sources are exempt from the provisions of this chapter:

1. Facilities owned or operated by or for a governmental agency.
2. Capital improvement projects of a governmental agency.
3. The maintenance or repair of public properties.
4. Public safety personnel in the course of executing their official duties, including, but not limited to, sworn peace officers, emergency personnel and public utility personnel. This exemption includes, without limitation, sound emanating from all equipment used by such personnel, whether stationary or mobile.
5. Public and private schools and school-sponsored activities.
6. Agricultural operations on land designated Agriculture in the City's General Plan, or land zoned AG (Agriculture), provided such operations are carried out in a manner consistent with accepted industry standards. This exemption includes, without limitation, sound emanating from all equipment used during such operations, whether stationary or mobile.
7. Wind energy conversion systems (WECS), provided such systems comply with the noise provisions of the Menifee Municipal Code.
8. Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of 7:00 a.m. and 8:00 p.m.
9. Motor vehicles (factory equipped), other than off-highway vehicles. This exemption does not include sound emanating from motor vehicle sound systems.
10. Heating and air conditioning equipment in proper repair.
11. Safety, warning and alarm devices, including, but not limited to, house and car alarms, and other warning devices that are designed to protect the public health, safety and welfare.
12. The discharge of firearms consistent with all state laws.

13. Bars, nightclubs, cocktail lounges, cabarets, billiards/pool halls, restaurants, drive-ins and eating establishments that have a Conditional Use Permit for on-site alcohol sales and live entertainment (interior noise). Outdoor patios and similar areas shall be subject to the requirements of this chapter, unless conditioned otherwise under Conditional Use Permit review.

C. **Construction-Related Exemptions**. Exceptions may be requested from the standards set forth in Section 9.210.060 of this chapter and may be characterized as construction-related, single event or continuous events exceptions.

1. Private construction projects, with or without a Building Permit, located one-quarter of a mile or more from an inhabited dwelling.
2. Private construction projects, with or without a building permit, located within one-quarter of a mile from an inhabited dwelling, shall be permitted Monday through Saturday, except nationally recognized holidays, 6:30 a.m. to 7:00 p.m., or specified in Section 8.01.010. There shall be no construction permitted on Sunday or nationally recognized holidays unless approval is obtained from the City Building Official or City Engineer.
3. Construction-related exceptions. If construction occurs during off hours or exceeds noise thresholds, an application for a construction-related exception shall be made using the temporary use application provided by the Community Development Director in Chapter 9.105 of this Title. For construction activities on Sunday or nationally recognized holidays, Section 8.01.010 of this Code shall prevail.

D. **General Sound Level Standards**. No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior and interior sound level on any other occupied property to exceed the sound level standards set forth in Table 9.210.060-1, Stationary Source Noise Standards.

Table 9.210.060-1 Stationary Source Noise Standards

Land Use	Interior Standards	Exterior Standards
10:00 p.m. to 7:00 a.m.	40 L_{eq} (10-minute)	45 L_{eq} (10-minute)
7:00 a.m. to 10:00 p.m.	55 L_{eq} (10-minute)	65 L_{eq} (10-minute)

E. **Sound Level Measurement Methodology**. Sound level measurements may be made anywhere within the boundaries of an occupied property. The actual location of a sound level measurement shall be at the discretion of the enforcement officials identified in Section 9.210.060.G. Sound level measurements shall be made with a sound level meter. Immediately before a measurement is made, the sound level meter shall be calibrated utilizing an acoustical calibrator meeting the standards of the American National Standards Institute. Following a sound level measurement, the calibration of the sound level meter shall be reverified. Sound level meters and calibration equipment shall be certified annually.

F. **Special Sound Level Measurement Methodology**. The general sound level standards set forth in Section 9.210.060.E apply to sound emanating from all sources, including the following special sound sources, and the person creating, or allowing the creation of, the sound is subject to the requirements of that section. The following special sound sources are also subject to the following additional standards; failure to comply with these standards constitutes separate violations of this chapter.

1. Motor vehicles.
    a. Off-highway vehicles.
        i. No person shall operate an off-highway vehicle unless it is equipped with a USDA-qualified spark arrester and a constantly operating and properly maintained muffler. A muffler is not considered constantly operating and properly maintained if it is equipped with a cutout, bypass or similar device.
        ii. No person shall operate an off-highway vehicle unless the noise emitted by the vehicle is not more than 96 dBA if the vehicle was manufactured on or after January 1, 1986, or is not more than 101 dBA if the vehicle was manufactured before January 1, 1986. For purposes of this division, emitted noise shall be measured a distance of 20 inches from the vehicle tailpipe using test procedures established by the Society of Automotive Engineers under Standard J-1287.
    b. Sound systems. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, between the hours of 10:00 p.m. and 8:00 a.m. the following morning, such that the sound system is audible to the human ear inside any inhabited dwelling. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, at any other time such that the sound system is audible to the human ear at a distance greater than 100 feet from the vehicle.
2. Power tools and equipment. No person shall operate any power tools or equipment as specified in Section 8.01.010, such that the power tools or equipment is audible to the human ear inside an inhabited dwelling other than a dwelling in which the power tools or equipment may be located. No person shall operate any power tools or equipment at any other time such that the power tools or equipment are audible to the human ear at a distance greater than 100 feet from the power tools or equipment.
3. Audio equipment. No person shall operate any audio equipment, whether portable or not, between the hours of 10:00 p.m. and 8:00 a.m. the following morning such that the equipment is audible to the human ear inside an inhabited dwelling other than a dwelling in which the equipment may be located. No person shall operate any audio equipment, whether portable or not, at any other time such that the equipment is audible to the human ear at a distance greater than 100 feet from the equipment.
4. Sound-amplifying equipment and live music. No person shall install, use or operate sound-amplifying equipment, or perform, or allow to be performed, live music unless such activities comply with the following requirements. To the extent that these requirements conflict with any conditions of approval attached to an underlying land use permit, these requirements shall control.
    a. Sound-amplifying equipment or live music is prohibited between the hours of 10:00 p.m. and 8:00 a.m. the following morning on Sunday through Thursday and between the hours of 11:00 p.m. and 8:00 a.m. the following morning on Friday and Saturday.
    b. Sound emanating from sound-amplifying equipment or live music at any other time shall not be audible to the human ear at a distance greater than 200 feet from the equipment or music.

G. **Duty to Cooperate**. No person shall refuse to cooperate with, or obstruct, any peace officer or code enforcement officer when he or she is engaged in the process of enforcing the provisions of this chapter. This duty to cooperate may require a person to extinguish a sound source so that it

can be determined whether sound emanating from the source violates the provisions of this chapter.

APPENDIX 5.1:

STUDY AREA PHOTOS

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JN:15796

15796_L1_B 1.North
33, 44' 34.330000", 117, 10' 47.230000"

15796_L1_B 2.South
33, 44' 34.390000", 117, 10' 47.260000"

15796_L1_B 3.East
33, 44' 34.400000", 117, 10' 47.230000"

15796_L1_B 4.West
33, 44' 34.390000", 117, 10' 47.290000"

JN:15796

15796_L2_C 1.North
33, 44' 34.420000", 117, 10' 41.740000"

15796_L2_C 2.South
33, 44' 34.440000", 117, 10' 41.770000"

15796_L2_C 3.East
33, 44' 34.470000", 117, 10' 41.550000"

15796_L2_C 4.West
33, 44' 34.460000", 117, 10' 41.550000"

JN:15796

15796_L3_H 1.North
33, 44' 11.510000", 117, 10' 33.940000"

15796_L3_H 2.South
33, 44' 11.480000", 117, 10' 33.970000"

15796_L3_H 3.East
33, 44' 11.430000", 117, 10' 33.940000"

15796_L3_H 4.West
33, 44' 11.440000", 117, 10' 33.970000"

JN:15796

15796_L4_I 1.North
33, 44' 7.020000", 117, 10' 49.760000"

15796_L4_I 2.South
33, 44' 7.060000", 117, 10' 49.790000"

15796_L4_I 3.East
33, 44' 7.170000", 117, 10' 49.700000"

15796_L4_I 4.West
33, 44' 7.060000", 117, 10' 49.760000"

JN:15796

15796_L4_L 1.North
33, 44' 20.790000", 117, 11' 5.330000"

15796_L4_L 2.South
33, 44' 20.700000", 117, 11' 5.300000"

15796_L4_L 3.East
33, 44' 20.570000", 117, 11' 5.330000"

15796_L4_L 4.West
33, 44' 20.550000", 117, 11' 5.330000"

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APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS

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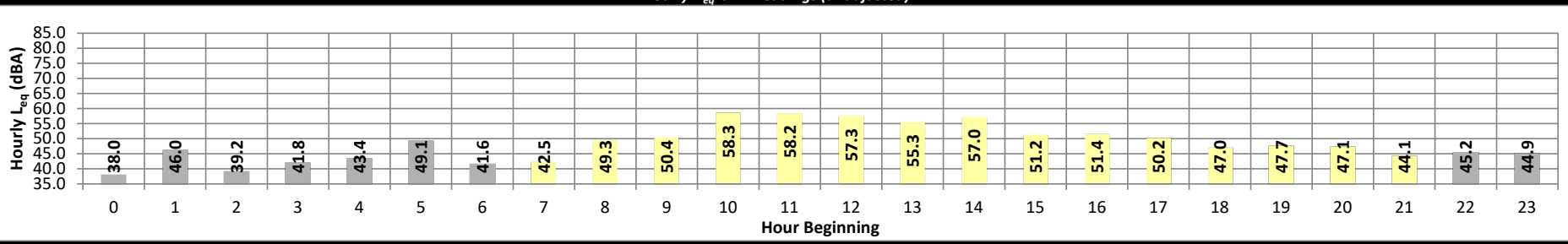
24-Hour Noise Level Measurement Summary

Date: Monday, June 13, 2022 *Location:* L1- Located north of the Project site near single-family *Meter:* Piccolo II *JN:* 14912

Project: Murrieta and Ethanac Industrial Warehouse *Source:* residence at 25815 Floyd Avenue. *Analyst:* S. Shami

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	38.0	44.9	34.8	43.0	42.3	41.0	40.4	38.4	37.2	35.8	35.5	35.2	38.0	10.0	48.0
	1	46.0	63.5	36.1	60.0	56.3	49.8	47.2	42.1	39.9	37.6	37.2	36.6	46.0	10.0	56.0
	2	39.2	47.9	35.2	45.5	44.5	42.9	42.0	39.6	38.0	36.2	35.9	35.5	39.2	10.0	49.2
	3	41.8	50.6	37.3	48.3	47.2	45.6	44.7	42.4	40.6	38.6	38.2	37.7	41.8	10.0	51.8
	4	43.4	52.8	38.9	50.3	49.0	47.1	46.1	43.8	42.2	40.3	39.9	39.4	43.4	10.0	53.4
	5	49.1	68.1	40.3	63.6	59.4	49.2	45.7	44.1	43.0	41.5	41.2	40.7	49.1	10.0	59.1
	6	41.6	54.1	37.8	50.3	49.0	46.7	43.0	40.7	39.9	38.9	38.6	38.2	41.6	10.0	51.6
Day	7	42.5	62.8	37.6	51.7	48.5	44.5	43.0	40.9	39.8	38.5	38.3	37.9	42.5	0.0	42.5
	8	49.3	61.0	43.7	55.8	54.7	52.8	52.1	49.5	48.2	45.6	45.0	44.4	49.3	0.0	49.3
	9	50.4	63.6	38.8	60.9	59.9	56.7	55.6	48.4	45.5	40.5	39.9	39.3	50.4	0.0	50.4
	10	58.3	73.4	38.7	70.7	69.6	66.5	63.8	50.7	45.4	40.9	40.3	39.2	58.3	0.0	58.3
	11	58.2	72.0	38.5	70.0	68.9	66.7	64.5	53.3	44.7	40.2	39.6	38.9	58.2	0.0	58.2
	12	57.3	70.0	38.3	68.7	67.8	65.8	63.8	51.5	45.2	40.4	39.8	38.8	57.3	0.0	57.3
	13	55.3	71.1	38.9	66.7	65.4	63.0	60.8	51.7	45.3	40.7	40.1	39.4	55.3	0.0	55.3
	14	57.0	69.9	39.4	68.3	67.2	64.8	63.1	53.2	46.5	41.4	40.7	40.0	57.0	0.0	57.0
	15	51.2	63.0	38.3	61.5	60.8	58.7	57.1	48.4	43.7	40.0	39.5	38.7	51.2	0.0	51.2
	16	51.4	62.9	40.8	60.4	59.3	57.3	56.2	51.4	48.0	43.5	42.6	41.5	51.4	0.0	51.4
	17	50.2	61.3	41.5	58.5	57.3	55.3	54.1	50.7	47.9	43.9	43.2	42.1	50.2	0.0	50.2
	18	47.0	58.2	40.3	54.7	53.4	51.2	50.2	47.5	45.3	42.3	41.7	40.9	47.0	0.0	47.0
	19	47.7	88.7	41.7	85.7	84.1	80.5	77.5	57.7	47.2	43.5	43.0	42.3	47.7	5.0	52.7
	20	47.1	55.8	41.7	53.6	52.7	51.2	50.3	47.8	45.8	43.3	42.9	42.2	47.1	5.0	52.1
	21	44.1	51.7	39.9	49.6	48.7	47.4	46.8	44.6	43.2	41.4	41.0	40.4	44.1	5.0	49.1
Night	22	45.2	53.7	39.7	51.3	50.5	49.2	48.4	46.0	44.0	41.4	40.9	40.3	45.2	10.0	55.2
	23	44.9	54.4	38.6	51.6	50.7	49.2	48.3	45.6	43.4	40.4	39.9	39.1	44.9	10.0	54.9

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	42.5	51.7	37.6	49.6	48.5	44.5	43.0	40.9	39.8	38.5	38.3	37.9
	Max	58.3	88.7	43.7	85.7	84.1	80.5	77.5	57.7	48.2	45.6	45.0	44.4
Energy Average		53.7	Average:		62.5	61.2	58.8	57.3	49.8	45.4	41.7	41.2	40.4
Night	Min	38.0	44.9	34.8	43.0	42.3	41.0	40.4	38.4	37.2	35.8	35.5	35.2
	Max	49.1	68.1	40.3	63.6	59.4	49.8	48.4	46.0	44.0	41.5	41.2	40.7
Energy Average		44.5	Average:		51.5	49.9	46.7	45.1	42.5	40.9	39.0	38.6	38.1

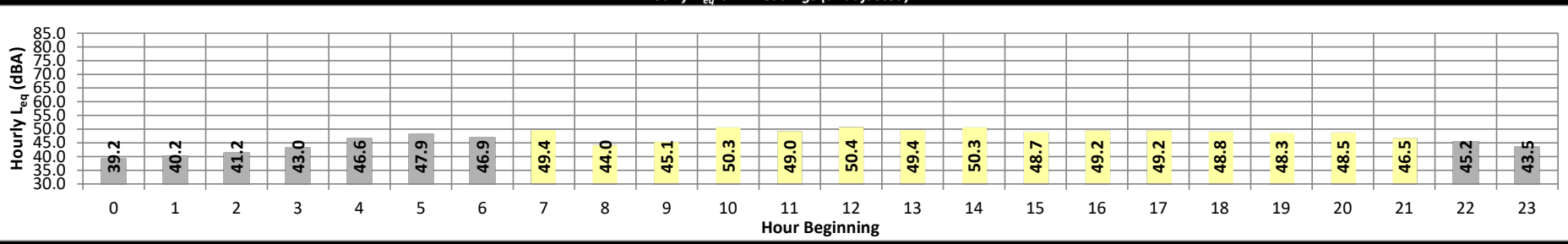
24-Hour	L_{eq} (dBA) Daytime (7am-10pm)	Nighttime (10pm-7am)
51.9	**53.7**	**44.5**

24-Hour Noise Level Measurement Summary

Date: Monday, June 13, 2022 *Location:* L2- Located north of the Project site near single-family *Meter:* Piccolo II *JN:* 14912

Project: Murrieta and Ethanac Industrial Warehouse *Source:* residence at 25955 Floyd Avenue. *Analyst:* S. Shami

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	39.2	47.1	33.7	46.8	46.5	45.4	44.2	38.8	36.0	34.4	34.1	33.8	39.2	10.0	49.2
	1	40.2	48.8	33.8	48.3	47.9	46.5	44.8	40.0	37.0	34.6	34.3	34.0	40.2	10.0	50.2
	2	41.2	51.2	33.5	50.8	50.6	48.8	46.9	39.0	36.1	34.2	33.9	33.6	41.2	10.0	51.2
	3	43.0	51.9	35.9	51.6	51.1	49.7	48.0	42.8	39.0	36.6	36.3	36.0	43.0	10.0	53.0
	4	46.6	55.2	38.5	54.9	54.5	53.2	51.8	46.5	43.1	39.3	39.0	38.6	46.6	10.0	56.6
	5	47.9	56.0	40.3	55.6	55.2	54.1	52.7	48.5	44.9	41.4	40.9	40.5	47.9	10.0	57.9
	6	46.9	54.7	38.6	54.3	53.9	52.8	51.6	47.4	44.3	40.1	39.5	38.8	46.9	10.0	56.9
Day	7	49.4	64.0	38.0	63.1	61.2	55.5	51.5	44.9	42.2	39.0	38.5	38.2	49.4	0.0	49.4
	8	44.0	53.1	36.3	52.4	51.9	50.4	48.8	43.8	41.0	37.3	36.9	36.4	44.0	0.0	44.0
	9	45.1	53.8	37.2	53.5	53.2	51.7	50.1	45.0	42.3	38.3	37.8	37.3	45.1	0.0	45.1
	10	50.3	59.7	36.4	59.0	58.6	57.4	56.7	50.1	42.9	37.8	37.2	36.5	50.3	0.0	50.3
	11	49.0	58.2	38.0	57.6	57.2	55.9	54.8	48.5	43.0	39.3	38.8	38.2	49.0	0.0	49.0
	12	50.4	59.8	39.4	59.4	59.2	58.2	56.6	49.0	44.7	40.8	40.3	39.7	50.4	0.0	50.4
	13	49.4	58.1	40.6	57.7	57.3	55.8	54.2	49.6	45.3	42.0	41.4	40.8	49.4	0.0	49.4
	14	50.3	58.3	40.2	57.8	57.4	56.3	55.6	50.9	46.1	41.7	41.1	40.5	50.3	0.0	50.3
	15	48.7	57.0	39.9	56.4	55.8	54.6	53.5	49.0	46.0	42.1	41.1	40.2	48.7	0.0	48.7
	16	49.2	57.1	41.0	56.7	56.3	55.0	53.8	49.4	46.7	42.7	42.0	41.2	49.2	0.0	49.2
	17	49.2	56.9	41.9	56.3	55.8	53.8	52.7	49.7	47.5	44.0	43.2	42.1	49.2	0.0	49.2
	18	48.8	57.3	40.8	57.1	56.7	54.7	52.8	48.9	46.6	42.5	41.6	41.0	48.8	0.0	48.8
	19	48.3	57.4	41.3	56.2	55.0	53.1	52.0	48.9	46.7	42.9	42.3	41.5	48.3	5.0	53.3
	20	48.5	55.7	40.6	55.3	54.9	53.5	52.4	49.5	46.4	42.2	41.4	40.8	48.5	5.0	53.5
	21	46.5	53.9	39.6	53.5	53.1	52.0	50.7	47.2	44.4	40.8	40.3	39.8	46.5	5.0	51.5
Night	22	45.2	52.1	38.2	51.8	51.5	50.4	49.4	46.1	43.0	39.4	38.8	38.3	45.2	10.0	55.2
	23	43.5	51.2	36.4	50.8	50.3	49.1	47.9	44.0	41.1	37.5	37.0	36.6	43.5	10.0	53.5

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	44.0	53.1	36.3	52.4	51.9	50.4	48.8	43.8	41.0	37.3	36.9	36.4
	Max	50.4	64.0	41.9	63.1	61.2	58.2	56.7	50.9	47.5	44.0	43.2	42.1
Energy Average		48.8	Average:		56.8	56.2	54.5	53.1	48.3	44.8	40.9	40.3	39.6
Night	Min	39.2	47.1	33.5	46.8	46.5	45.4	44.2	38.8	36.0	34.2	33.9	33.6
	Max	47.9	56.0	40.3	55.6	55.2	54.1	52.7	48.5	44.9	41.4	40.9	40.5
Energy Average		44.7	Average:		51.7	51.3	50.0	48.6	43.7	40.5	37.5	37.1	36.7

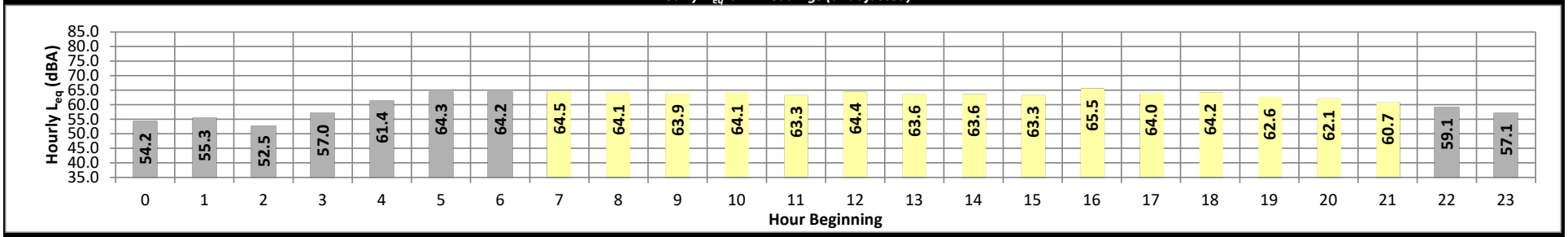
L_{eq} (dBA)	Daytime (7am-10pm)	Nighttime (10pm-7am)
24-Hour		
47.6	**48.8**	**44.7**

24-Hour Noise Level Measurement Summary

Date: Monday, June 13, 2022 *Location:* L3- Located east of the Project site near a construction *Meter:* Piccolo II *JN:* 14912

Project: Murrieta and Ethanac Industrial Warehouse *Source:* company at 26414 Murrieta Road. *Analyst:* S. Shami

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	54.2	67.8	34.8	67.4	66.4	62.2	58.5	46.0	39.2	35.8	35.3	34.9	54.2	10.0	64.2
	1	55.3	70.3	35.0	69.4	67.6	62.2	58.9	46.7	39.4	35.7	35.4	35.1	55.3	10.0	65.3
	2	52.5	66.3	34.3	65.9	64.9	60.4	56.6	42.3	37.0	34.8	34.6	34.4	52.5	10.0	62.5
	3	57.0	70.4	37.7	69.9	68.7	64.7	61.8	51.4	43.8	38.6	38.2	37.8	57.0	10.0	67.0
	4	61.4	74.2	40.3	73.8	72.6	69.0	66.8	57.6	48.8	41.8	40.9	40.4	61.4	10.0	71.4
	5	64.3	76.8	43.5	76.4	75.2	71.5	69.3	61.9	53.7	45.1	44.2	43.6	64.3	10.0	74.3
	6	64.2	75.3	41.1	74.9	73.9	71.4	69.7	63.7	56.1	43.9	42.2	41.3	64.2	10.0	74.2
Day	7	64.5	75.3	45.2	74.8	73.9	71.0	69.5	64.8	57.8	48.2	46.9	45.8	64.5	0.0	64.5
	8	64.1	74.5	41.8	74.1	73.2	70.5	69.2	64.7	57.5	44.5	43.2	42.2	64.1	0.0	64.1
	9	63.9	74.2	43.0	73.8	73.0	70.5	69.0	64.4	57.8	45.4	44.2	43.2	63.9	0.0	63.9
	10	64.1	73.4	43.4	73.0	72.3	70.3	69.4	65.2	59.0	46.6	45.0	43.7	64.1	0.0	64.1
	11	63.3	72.2	43.4	71.8	71.0	69.4	68.3	64.6	59.1	47.1	45.1	43.7	63.3	0.0	63.3
	12	64.4	74.2	44.8	73.9	72.9	70.4	69.1	65.3	60.1	48.2	46.6	45.1	64.4	0.0	64.4
	13	63.6	73.7	43.6	73.2	72.4	69.7	68.4	64.3	59.1	47.1	45.1	43.9	63.6	0.0	63.6
	14	63.6	73.0	44.6	72.5	71.6	69.6	68.5	64.8	59.5	48.1	46.6	45.1	63.6	0.0	63.6
	15	63.3	73.4	42.4	73.0	72.0	69.4	68.1	64.1	58.6	45.8	44.0	42.5	63.3	0.0	63.3
	16	65.5	78.6	44.1	77.9	76.4	72.2	69.4	63.9	58.8	47.1	45.8	44.5	65.5	0.0	65.5
	17	64.0	74.2	45.2	73.6	72.7	70.0	68.4	64.8	59.9	48.3	46.6	45.3	64.0	0.0	64.0
	18	64.2	74.9	44.6	74.5	73.5	70.5	69.2	64.6	58.5	47.7	45.8	44.9	64.2	0.0	64.2
	19	62.6	72.5	44.5	72.0	70.9	68.8	67.8	63.5	56.8	47.3	46.1	44.8	62.6	5.0	67.6
	20	62.1	72.3	44.6	71.9	71.1	68.9	67.6	62.3	55.3	46.7	45.7	44.8	62.1	5.0	67.1
	21	60.7	72.4	42.3	71.9	71.0	67.9	66.2	59.5	51.2	43.6	43.0	42.5	60.7	5.0	65.7
Night	22	59.1	71.0	40.8	70.5	69.5	66.6	64.9	56.6	48.6	42.2	41.5	41.0	59.1	10.0	69.1
	23	57.1	69.8	38.3	69.2	68.1	65.2	62.8	52.5	44.4	39.2	38.7	38.4	57.1	10.0	67.1

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	60.7	72.2	41.8	71.8	70.9	67.9	66.2	59.5	51.2	43.6	43.0	42.2
	Max	65.5	78.6	45.2	77.9	76.4	72.2	69.5	65.3	60.1	48.3	46.9	45.8
Energy Average		63.7	Average:		73.5	72.5	69.9	68.5	64.1	57.9	46.8	45.3	44.1
Night	Min	52.5	66.3	34.3	65.9	64.9	60.4	56.6	42.3	37.0	34.8	34.6	34.4
	Max	64.3	76.8	43.5	76.4	75.2	71.5	69.7	63.7	56.1	45.1	44.2	43.6
Energy Average		60.2	Average:		70.8	69.7	65.9	63.3	53.2	45.7	39.7	39.0	38.5

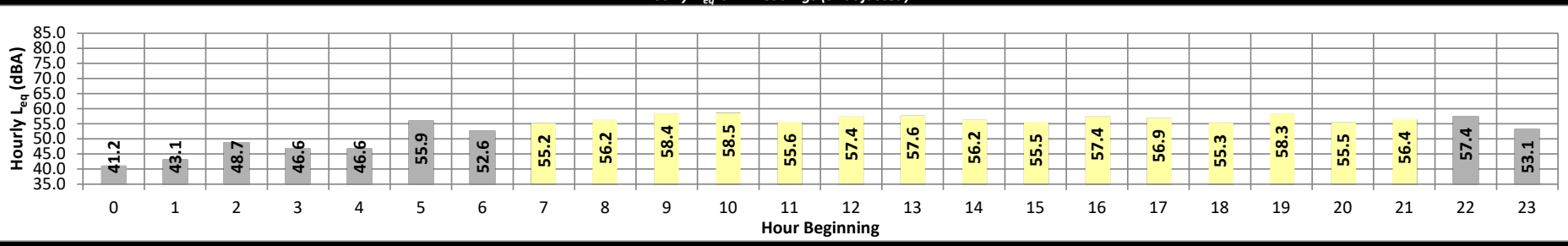
24-Hour	L_{eq} (dBA) Daytime (7am-10pm)	Nighttime (10pm-7am)
62.7	**63.7**	**60.2**

24-Hour Noise Level Measurement Summary

Date: Monday, June 13, 2022 *Location:* L4- Located south of the Project site near single-family *Meter:* Piccolo II *JN:* 14912

Project: Murrieta and Ethanac Industrial Warehouse *Source:* residence at 25910 Cam Juarez. *Analyst:* S. Shami

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	41.2	50.1	37.2	49.3	48.2	45.3	44.0	41.1	39.5	38.0	37.7	37.3	41.2	10.0	51.2
	1	43.1	51.9	38.2	51.3	50.7	49.0	47.6	42.2	40.5	38.8	38.5	38.3	43.1	10.0	53.1
	2	48.7	58.9	37.7	58.6	58.1	56.8	55.2	45.3	40.4	38.3	38.0	37.8	48.7	10.0	58.7
	3	46.6	56.4	39.5	55.9	55.3	53.8	52.1	44.9	41.8	40.1	39.9	39.6	46.6	10.0	56.6
	4	46.6	56.5	40.8	56.0	55.1	52.4	50.7	45.9	43.8	41.6	41.2	40.9	46.6	10.0	56.6
	5	55.9	75.8	43.4	75.2	74.8	73.4	72.1	68.0	58.0	44.4	43.9	43.5	55.9	10.0	65.9
	6	52.6	63.4	41.3	63.0	62.5	60.2	57.9	50.2	46.1	42.3	41.9	41.4	52.6	10.0	62.6
Day	7	55.2	66.6	41.7	66.2	65.7	63.4	61.2	51.3	46.6	42.9	42.3	41.9	55.2	0.0	55.2
	8	56.2	65.8	47.1	65.5	65.2	63.4	61.5	54.8	51.8	48.7	48.2	47.4	56.2	0.0	56.2
	9	58.4	70.1	42.1	69.9	69.5	67.6	64.6	50.9	46.2	42.9	42.5	42.3	58.4	0.0	58.4
	10	58.5	69.8	41.7	69.4	69.0	67.0	64.6	55.6	47.1	42.8	42.3	41.9	58.5	0.0	58.5
	11	55.6	67.0	42.4	66.6	66.3	64.0	61.2	51.2	46.8	43.3	42.9	42.6	55.6	0.0	55.6
	12	57.4	68.4	43.2	68.1	67.6	65.9	63.7	53.6	47.7	44.3	43.8	43.4	57.4	0.0	57.4
	13	57.6	68.4	43.8	67.9	67.4	65.7	63.8	55.6	50.6	45.0	44.4	44.0	57.6	0.0	57.6
	14	56.2	67.4	43.8	66.9	66.4	64.7	62.6	52.5	48.1	44.7	44.3	43.9	56.2	0.0	56.2
	15	55.5	66.8	42.7	66.4	66.0	64.0	61.6	51.5	46.6	43.4	43.1	42.8	55.5	0.0	55.5
	16	57.4	68.8	44.5	68.2	67.6	65.4	63.9	54.7	48.8	45.2	44.9	44.6	57.4	0.0	57.4
	17	56.9	68.7	43.4	68.4	67.7	65.4	62.6	51.9	48.7	44.7	44.2	43.6	56.9	0.0	56.9
	18	55.3	66.6	42.5	66.4	66.0	63.8	61.3	50.7	46.5	43.2	43.0	42.6	55.3	0.0	55.3
	19	58.3	70.9	43.1	70.6	70.0	66.8	63.8	50.9	46.9	44.0	43.6	43.2	58.3	5.0	63.3
	20	55.5	66.4	43.7	66.1	65.6	63.7	61.6	52.3	47.4	44.4	44.1	43.8	55.5	5.0	60.5
	21	56.4	67.8	43.3	67.5	67.0	65.0	62.4	51.9	47.2	44.2	43.7	43.3	56.4	5.0	61.4
Night	22	57.4	68.9	42.2	68.5	68.0	66.2	63.4	52.1	46.4	42.9	42.6	42.3	57.4	10.0	67.4
	23	53.1	64.3	41.4	63.9	63.6	61.9	59.4	49.9	44.8	42.0	41.8	41.5	53.1	10.0	63.1

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	55.2	65.8	41.7	65.5	65.2	63.4	61.2	50.7	46.2	42.8	42.3	41.9
	Max	58.5	70.9	47.1	70.6	70.0	67.6	64.6	55.6	51.8	48.7	48.2	47.4
Energy Average		56.9	Average:		67.6	67.1	65.1	62.7	52.6	47.8	44.2	43.8	43.4
Night	Min	41.2	50.1	37.2	49.3	48.2	45.3	44.0	41.1	39.5	38.0	37.7	37.3
	Max	57.4	75.8	43.4	75.2	74.8	73.4	72.1	68.0	58.0	44.4	43.9	43.5
Energy Average		52.3	Average:		60.2	59.6	57.7	55.8	48.8	44.6	40.9	40.6	40.3

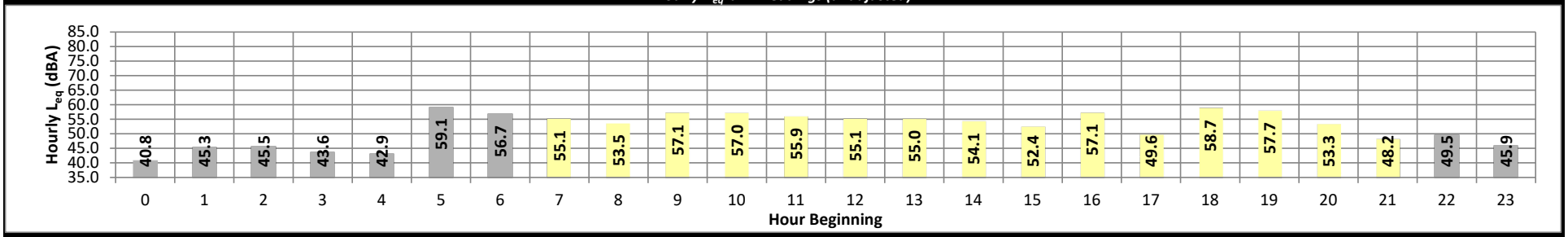
24-Hour	L_{eq} (dBA) Daytime (7am-10pm)	Nighttime (10pm-7am)
55.6	**56.9**	**52.3**

24-Hour Noise Level Measurement Summary

Date: Monday, June 13, 2022 | *Location:* L5- Located southwest of the Project site near single-family | *Meter:* Piccolo II | *JN:* 14912

Project: Murrieta and Ethanac Industrial Warehouse | *Source:* residence at 25735 McLaughlin Road. | *Analyst:* S. Shami

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	40.8	43.5	38.4	43.0	42.7	42.2	42.0	41.3	40.6	39.5	39.2	38.7	40.8	10.0	50.8
	1	45.3	56.8	38.7	55.6	54.4	52.4	50.5	42.6	40.8	39.6	39.3	38.9	45.3	10.0	55.3
	2	45.5	54.8	39.4	54.2	53.8	52.0	50.5	43.9	41.9	40.5	40.2	39.8	45.5	10.0	55.5
	3	43.6	52.3	39.8	51.1	50.5	48.0	46.7	43.2	41.7	40.5	40.3	40.1	43.6	10.0	53.6
	4	42.9	47.7	40.2	47.2	46.7	45.6	44.9	43.4	42.4	40.9	40.7	40.4	42.9	10.0	52.9
	5	59.1	67.4	56.5	66.3	65.8	65.1	64.6	63.0	61.5	58.9	58.3	57.2	59.1	10.0	69.1
	6	56.7	64.8	45.7	63.8	63.2	61.5	60.7	58.0	54.7	49.1	48.1	46.5	56.7	10.0	66.7
Day	7	55.1	62.3	45.7	61.4	60.8	59.7	58.9	56.2	53.5	49.1	48.0	46.6	55.1	0.0	55.1
	8	53.5	61.1	43.0	60.3	59.8	58.7	57.8	54.5	51.3	46.3	45.2	43.8	53.5	0.0	53.5
	9	57.1	64.8	46.2	64.0	63.4	62.0	61.2	58.2	55.1	50.2	49.1	47.2	57.1	0.0	57.1
	10	57.0	65.5	45.1	64.8	64.3	63.1	62.4	57.1	53.6	48.5	47.5	45.9	57.0	0.0	57.0
	11	55.9	67.1	43.1	66.2	65.2	63.6	61.7	53.1	49.3	45.4	44.5	43.5	55.9	0.0	55.9
	12	55.1	65.0	42.1	64.6	64.0	62.9	61.6	53.0	47.5	43.8	43.1	42.4	55.1	0.0	55.1
	13	55.0	64.2	44.1	63.6	63.1	61.8	60.4	54.5	51.7	47.0	46.0	44.6	55.0	0.0	55.0
	14	54.1	64.0	42.6	63.4	62.9	61.7	60.0	52.4	47.4	43.5	43.1	42.7	54.1	0.0	54.1
	15	52.4	62.3	42.7	61.6	60.8	58.8	57.8	51.2	48.1	44.6	43.9	43.1	52.4	0.0	52.4
	16	57.1	70.2	44.1	69.0	68.3	65.0	60.8	53.7	48.9	45.4	44.9	44.4	57.1	0.0	57.1
	17	49.6	57.7	43.7	57.2	56.7	55.3	54.1	49.8	47.1	44.6	44.2	43.8	49.6	0.0	49.6
	18	58.7	65.7	46.4	64.7	64.1	63.0	62.4	60.3	57.3	50.9	49.5	47.3	58.7	0.0	58.7
	19	57.7	68.9	47.2	67.5	66.2	63.5	61.9	57.4	54.6	50.1	49.1	47.9	57.7	5.0	62.7
	20	53.3	65.2	44.4	63.7	62.6	60.5	58.3	51.4	48.2	45.4	45.1	44.6	53.3	5.0	58.3
	21	48.2	56.8	42.2	56.3	55.8	54.6	53.5	47.5	44.4	42.9	42.6	42.4	48.2	5.0	53.2
Night	22	49.5	58.0	41.5	57.3	56.8	55.7	54.5	49.8	46.2	42.3	42.0	41.6	49.5	10.0	59.5
	23	45.9	53.4	41.3	52.8	52.4	51.1	50.1	45.8	43.6	42.0	41.8	41.5	45.9	10.0	55.9

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	48.2	56.8	42.1	56.3	55.8	54.6	53.5	47.5	44.4	42.9	42.6	42.4
	Max	58.7	70.2	47.2	69.0	68.3	65.0	62.4	60.3	57.3	50.9	49.5	47.9
Energy Average		55.4	Average:		63.2	62.5	61.0	59.5	54.0	50.5	46.5	45.7	44.7
Night	Min	40.8	43.5	38.4	43.0	42.7	42.2	42.0	41.3	40.6	39.5	39.2	38.7
	Max	59.1	67.4	56.5	66.3	65.8	65.1	64.6	63.0	61.5	58.9	58.3	57.2
Energy Average		52.3	Average:		54.6	54.0	52.6	51.6	47.9	45.9	43.7	43.3	42.7

24-Hour	L_{eq} (dBA) Daytime (7am-10pm)	Nighttime (10pm-7am)
54.5	**55.4**	**52.3**

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APPENDIX 9.1:

CADNAA OPERATIONAL NOISE MODEL INPUTS

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15796 - Ethanac Business Park

CadnaA Noise Prediction Model: 15796-02.cna
Date: 28.05.24
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	**0.00**
Max. Search Radius (#(Unit,LEN))	**2000.01**
Min. Dist Src to Rcvr	**0.00**
Partition	
Raster Factor	**0.50**
Max. Length of Section (#(Unit,LEN))	**999.99**
Min. Length of Section (#(Unit,LEN))	**1.01**
Min. Length of Section (%)	**0.00**
Proj. Line Sources	**On**
Proj. Area Sources	**On**
Ref. Time	
Daytime Penalty (dB)	**0.00**
Recr. Time Penalty (dB)	**5.00**
Night-time Penalty (dB)	**10.00**
DTM	
Standard Height (m)	**0.00**
Model of Terrain	**Triangulation**
Reflection	
max. Order of Reflection	**2**
Search Radius Src	**100.00**
Search Radius Rcvr	**100.00**
Max. Distance Source - Rcvr	**1000.00 1000.00**
Min. Distance Rvcr - Reflector	**1.00 1.00**
Min. Distance Source - Reflector	**0.10**
Industrial (ISO 9613)	
Lateral Diffraction	**some Obj**
Obst. within Area Src do not shield	**On**
Screening	**Incl. Ground Att. over Barrier**
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	**3.0 20.0 0.0**
Temperature (#(Unit,TEMP))	**10**
rel. Humidity (%)	**70**
Ground Absorption G	**0.50**
Wind Speed for Dir. (#(Unit,SPEED))	**3.0**
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	39.0	38.6	45.3	0.0	0.0	0.0		x	Total	5.00	a	6279106.23	2215085.49	5.00
RECEIVERS		R2	36.8	36.3	43.0	0.0	0.0	0.0		x	Total	5.00	a	6279536.44	2215080.28	5.00
RECEIVERS		R3	33.9	33.4	40.0	0.0	0.0	0.0		x	Total	5.00	a	6280220.36	2213131.33	5.00
RECEIVERS		R4	35.9	35.5	42.1	0.0	0.0	0.0		x	Total	5.00	a	6278933.78	2212329.21	5.00
RECEIVERS		R5	30.7	28.7	35.4	0.0	0.0	0.0		x	Total	5.00	a	6277567.56	2213980.36	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC01	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6278523.81	2213660.72	47.00
POINTSOURCE		AC02	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6278590.25	2213657.39	47.00
POINTSOURCE		AC03	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6278586.93	2213704.73	47.00
POINTSOURCE		AC04	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6278524.64	2213706.39	47.00
POINTSOURCE		AC05	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6278597.72	2214265.33	47.00
POINTSOURCE		AC06	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6278530.45	2214263.66	47.00
POINTSOURCE		AC07	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6278527.96	2214310.17	47.00
POINTSOURCE		AC08	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6278597.72	2214311.00	47.00
POINTSOURCE		FIRE01	78.3	78.3	78.3	Lw	78.3		900.00	0.00	540.00	8.00	a	6278743.41	2214225.52	8.00
POINTSOURCE		TRASH01	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6278704.82	2214226.88	5.00

Line Source(s)

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Operating Time			Moving Pt. Src				Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	Number			Speed		
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	Day	Evening	Night	(mph)	(ft)	
LINESOURCE		TRUCK01	93.2	93.2	93.2	68.9	68.9	68.9	Lw	93.2									8	a

Name	ID	Height				Coordinates			
		Begin		End		x	y	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
LINESOURCE	TRUCK01	8.00	a			6278780.02	2214344.22	8.00	0.00
						6278677.04	2214345.88	8.00	0.00
						6278659.60	2213813.53	8.00	0.00
						6278660.43	2213574.34	8.00	0.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
AREASOURCE		DOCK01	103.4	103.4	103.4	63.8	63.8	63.8	Lw	103.4					8	a
AREASOURCE		CAR01	81.1	81.1	81.1	51.8	51.8	51.8	Lw	81.1					5	a
AREASOURCE		CAR02	81.1	81.1	81.1	52.9	52.9	52.9	Lw	81.1					5	a
AREASOURCE		CAR03	81.1	81.1	81.1	60.9	60.9	60.9	Lw	81.1					5	a
AREASOURCE		CAR04	81.1	81.1	81.1	64.7	64.7	64.7	Lw	81.1					5	a
AREASOURCE		CAR05	81.1	81.1	81.1	61.8	61.8	61.8	Lw	81.1					5	a
AREASOURCE		CAR06	81.1	81.1	81.1	64.8	64.8	64.8	Lw	81.1					5	a
AREASOURCE		CAR07	81.1	81.1	81.1	57.5	57.5	57.5	Lw	81.1					5	a
AREASOURCE		CAR08	81.1	81.1	81.1	59.2	59.2	59.2	Lw	81.1					5	a
AREASOURCE		CAR09	81.1	81.1	81.1	52.9	52.9	52.9	Lw	81.1					5	a

Name	ID	Height				Coordinates			
		Begin		End		x	y	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
AREASOURCE	DOCK01	8.00	a			6278752.61	2214235.43	8.00	0.00
						6278750.12	2213730.48	8.00	0.00
						6278617.66	2213732.97	8.00	0.00
						6278557.03	2213732.14	8.00	0.00
						6278560.35	2214236.26	8.00	0.00
						6278622.64	2214237.92	8.00	0.00
AREASOURCE	CAR01	5.00	a			6278160.84	2214404.01	5.00	0.00
						6278651.31	2214399.60	5.00	0.00
						6278652.41	2214382.49	5.00	0.00
						6278160.29	2214384.15	5.00	0.00
AREASOURCE	CAR02	5.00	a			6278208.28	2214359.32	5.00	0.00
						6278600.00	2214356.01	5.00	0.00
						6278599.45	2214337.81	5.00	0.00
						6278206.63	2214341.67	5.00	0.00
AREASOURCE	CAR03	5.00	a			6278634.21	2214305.25	5.00	0.00
						6278651.31	2214304.70	5.00	0.00
						6278651.31	2214244.01	5.00	0.00
						6278632.00	2214243.46	5.00	0.00
AREASOURCE	CAR04	5.00	a			6278721.93	2214304.15	5.00	0.00
						6278747.86	2214303.60	5.00	0.00
						6278748.96	2214286.50	5.00	0.00
						6278720.27	2214286.50	5.00	0.00
AREASOURCE	CAR05	5.00	a			6278700.41	2214260.01	5.00	0.00
						6278748.96	2214262.22	5.00	0.00
						6278748.96	2214242.36	5.00	0.00
						6278701.52	2214241.81	5.00	0.00
AREASOURCE	CAR06	5.00	a			6278704.24	2213720.26	5.00	0.00
						6278731.67	2213720.26	5.00	0.00
						6278731.07	2213703.57	5.00	0.00
						6278703.65	2213703.57	5.00	0.00
AREASOURCE	CAR07	5.00	a			6278731.07	2213703.57	5.00	0.00
						6278751.93	2213702.98	5.00	0.00
						6278749.55	2213586.14	5.00	0.00
						6278728.09	2213586.14	5.00	0.00
AREASOURCE	CAR08	5.00	a			6278683.38	2213701.19	5.00	0.00
						6278703.65	2213703.57	5.00	0.00
						6278703.05	2213617.14	5.00	0.00
						6278683.98	2213617.14	5.00	0.00
AREASOURCE	CAR09	5.00	a			6278616.02	2213629.65	5.00	0.00
						6278616.02	2213612.96	5.00	0.00
						6278202.92	2213615.35	5.00	0.00
						6278204.11	2213633.23	5.00	0.00

Barrier(s)

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height				Coordinates			
				left	right		horz.	vert.	Begin		End		x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
BARRIERPLANNED			0						14.00	a			6278622.64	2214237.92	14.00	0.00
													6278651.88	2214237.49	14.00	0.00
BARRIERPLANNED			0						14.00	a			6278694.30	2214236.57	14.00	0.00
													6278752.61	2214235.43	14.00	0.00
													6278750.12	2213730.48	14.00	0.00
													6278678.16	2213733.08	14.00	0.00
BARRIERPLANNED			0						14.00	a			6278637.13	2213734.46	14.00	0.00
													6278617.66	2213732.97	14.00	0.00

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING			BUILDING00001	x	0		42.00	a	6278624.30	2214330.94	42.00	0.00
									6278622.64	2214237.92	42.00	0.00
									6278560.35	2214236.26	42.00	0.00
									6278557.03	2213732.14	42.00	0.00
									6278617.66	2213732.97	42.00	0.00
									6278618.49	2213638.29	42.00	0.00
									6278187.45	2213640.78	42.00	0.00
									6278194.10	2214335.09	42.00	0.00

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APPENDIX 10.1:

CADNAA CONSTRUCTION NOISE MODEL INPUTS

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15796 - Ethanac Business Park

CadnaA Noise Prediction Model: 15796-02_Construction.cna
Date: 28.05.24
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	**0.00**
Max. Search Radius (#(Unit,LEN))	**2000.01**
Min. Dist Src to Rcvr	**0.00**
Partition	
Raster Factor	**0.50**
Max. Length of Section (#(Unit,LEN))	**999.99**
Min. Length of Section (#(Unit,LEN))	**1.01**
Min. Length of Section (%)	**0.00**
Proj. Line Sources	**On**
Proj. Area Sources	**On**
Ref. Time	
Daytime Penalty (dB)	**0.00**
Recr. Time Penalty (dB)	**5.00**
Night-time Penalty (dB)	**10.00**
DTM	
Standard Height (m)	**0.00**
Model of Terrain	**Triangulation**
Reflection	
max. Order of Reflection	**2**
Search Radius Src	**100.00**
Search Radius Rcvr	**100.00**
Max. Distance Source - Rcvr	**1000.00 1000.00**
Min. Distance Rvcr - Reflector	**1.00 1.00**
Min. Distance Source - Reflector	**0.10**
Industrial (ISO 9613)	
Lateral Diffraction	**some Obj**
Obst. within Area Src do not shield	**On**
Screening	**Incl. Ground Att. over Barrier**
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	**3.0 20.0 0.0**
Temperature (#(Unit,TEMP))	**10**
rel. Humidity (%)	**70**
Ground Absorption G	**0.50**
Wind Speed for Dir. (#(Unit,SPEED))	**3.0**
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	59.1	-47.9	56.1	0.0	0.0	0.0		x	Total	5.00	a	6279106.23	2215085.49	5.00
RECEIVERS		R2	57.2	-49.8	54.2	0.0	0.0	0.0		x	Total	5.00	a	6279536.44	2215080.28	5.00
RECEIVERS		R3	54.8	-52.2	51.8	0.0	0.0	0.0		x	Total	5.00	a	6280220.36	2213131.33	5.00
RECEIVERS		R4	56.1	-50.9	53.1	0.0	0.0	0.0		x	Total	5.00	a	6278933.78	2212329.21	5.00
RECEIVERS		R5	62.0	-45.0	59.0	0.0	0.0	0.0		x	Total	5.00	a	6277567.56	2213980.36	5.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
SITEBOUNDARY		CONSTRUCTION	122.6	15.6	15.6	75.7	-31.3	-31.3	PWL-Pt	115.6					8	a

Name	ID	Height				Coordinates			
		Begin		End		x	y	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	CONSTRUCTION	8.00	a			6278150.77	2214414.73	8.00	0.00
						6278781.48	2214403.73	8.00	0.00
						6278775.63	2213574.35	8.00	0.00
						6278147.16	2213583.69	8.00	0.00

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APPENDIX 10.2

CADNAA CONCRETE POUR NOISE MODEL INPUTS

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15796 - Ethanac Business Park

CadnaA Noise Prediction Model: 15796-02_Pour.cna
Date: 28.05.24
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	**0.00**
Max. Search Radius (#(Unit,LEN))	**2000.01**
Min. Dist Src to Rcvr	**0.00**
Partition	
Raster Factor	**0.50**
Max. Length of Section (#(Unit,LEN))	**999.99**
Min. Length of Section (#(Unit,LEN))	**1.01**
Min. Length of Section (%)	**0.00**
Proj. Line Sources	**On**
Proj. Area Sources	**On**
Ref. Time	
Daytime Penalty (dB)	**0.00**
Recr. Time Penalty (dB)	**5.00**
Night-time Penalty (dB)	**10.00**
DTM	
Standard Height (m)	**0.00**
Model of Terrain	**Triangulation**
Reflection	
max. Order of Reflection	**2**
Search Radius Src	**100.00**
Search Radius Rcvr	**100.00**
Max. Distance Source - Rcvr	**1000.00 1000.00**
Min. Distance Rvcr - Reflector	**1.00 1.00**
Min. Distance Source - Reflector	**0.10**
Industrial (ISO 9613)	
Lateral Diffraction	**some Obj**
Obst. within Area Src do not shield	**On**
Screening	**Incl. Ground Att. over Barrier**
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	**3.0 20.0 0.0**
Temperature (#(Unit,TEMP))	**10**
rel. Humidity (%)	**70**
Ground Absorption G	**0.50**
Wind Speed for Dir. (#(Unit,SPEED))	**3.0**
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	43.8	-63.1	40.8	0.0	0.0	0.0		x	Total	5.00	a	6279106.23	2215085.49	5.00
RECEIVERS		R2	41.9	-64.9	38.9	0.0	0.0	0.0		x	Total	5.00	a	6279536.44	2215080.28	5.00
RECEIVERS		R3	39.5	-67.2	36.5	0.0	0.0	0.0		x	Total	5.00	a	6280220.36	2213131.33	5.00
RECEIVERS		R4	40.8	-66.0	37.8	0.0	0.0	0.0		x	Total	5.00	a	6278933.78	2212329.21	5.00
RECEIVERS		R5	46.7	-60.3	43.7	0.0	0.0	0.0		x	Total	5.00	a	6277567.56	2213980.36	5.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
SITEBOUNDARY		CONSTRUCTION	107.3	0.3	0.3	60.4	-46.6	-46.6	PWL-Pt	100.3					8	a

Name	ID	Height				Coordinates			
		Begin		End		x	y	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	CONSTRUCTION	8.00	a			6278150.77	2214414.73	8.00	0.00
						6278781.48	2214403.73	8.00	0.00
						6278775.63	2213574.35	8.00	0.00
						6278147.16	2213583.69	8.00	0.00

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Appendix J: Traffic Analysis and Vehicle Miles Traveled Assessment

URBAN | CROSSROADS

ETHANAC BUSINESS PARK (PLN23-0171, PLN23-0173, PLN23-0174, PLN23-0175)

TRAFFIC ANALYSIS

PREPARED BY: Charlene So, PE | cso@urbanxroads.com
Jared Brawner | jbrawner@urbanxroads.com
Aric Evatt | aevatt@urbanxroads.com

Reference Number	Agency	Date
15796-08 TA Report	City of Menifee	September 10, 2024

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Appendix 3.3: Existing (2024) Conditions Traffic Signal Warrant Analysis Worksheets

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Appendix 4.1: Post Processing Worksheets

Appendix 5.1: E+P Conditions Intersection Operations Analysis Worksheets

Appendix 5.2: E+P Conditions Traffic Signal Warrant Analysis Worksheets

Appendix 5.3: E+P Conditions Off-Ramp Queuing Analysis Worksheets

Appendix 5.4: E+ P Conditions Intersection Operations Analysis Worksheets With Improvements

Appendix 6.1: EAC (2026) Conditions Intersection Operations Analysis Worksheets

Appendix 6.2: EAPC (2026) Conditions Intersection Operations Analysis Worksheets

Appendix 6.3: EAC (2026) Conditions Traffic Signal Warrant Analysis Worksheets

Appendix 6.4: EAPC (2026) Conditions Traffic Signal Warrant Analysis Worksheets

Appendix 6.5: EAC (2026) Conditions Off-Ramp Queuing Analysis Worksheets

Appendix 6.6: EAPC (2026) Conditions Off-Ramp Queuing Analysis Worksheets

Appendix 6.7: EAPC (2026) Conditions Intersection Operations Analysis Worksheets With Improvements

Appendix 6.8: EAPC (2026) Off-Ramp Queuing Analysis Worksheets With Improvements

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CA MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
EAC	Existing Plus Ambient Growth Plus Cumulative
EAPC	Existing Plus Ambient Growth Plus Project Plus Cumulative
E+P	Existing plus Project
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
PCE	Passenger Car Equivalent
PHF	Peak Hour Factor
Project	Ethanac Business Park
RCTC	Riverside County Transportation Commission
RTA	Riverside Transit Agency
TA	Traffic Analysis
TUMF	Transportation Uniform Mitigation Fee
VMT	Vehicle Miles Traveled
WRCOG	Western Riverside Council of Governments

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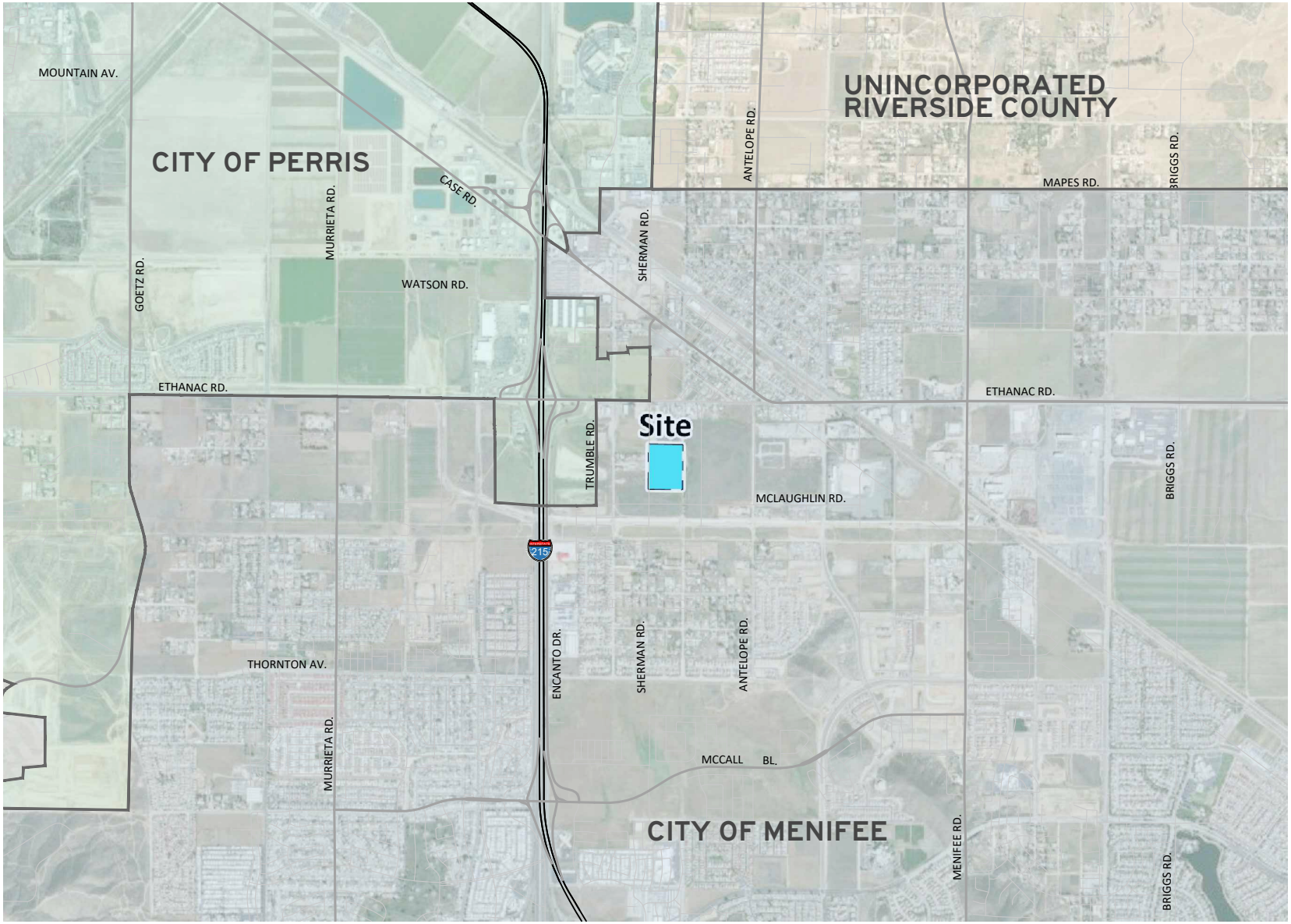
1 INTRODUCTION

This report presents the results of the Traffic Analysis (TA) for Ethanac Business Park development ("Project"), which is located south of Ethanac Road, east of Trumble Road, west of Sherman Road, and north of McLaughlin Road in the City of Menifee (Assessor's Parcel Numbers (APNs) 331-110-031, 024-026, 331-110-023, -038, -039), as shown in Exhibit 1-1. The purpose of this TA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project and, where necessary, recommend improvements to achieve acceptable operations consistent with General Plan level of service (LOS) goals and policies. This TA has been prepared in accordance with the City of Menifee's LOS Traffic Study Guidelines (dated October 2020). (1) The City-approved Project Traffic Study Scoping Agreement is provided in Appendix 1.1 of this TA.

This TA is provided for informational purposes only and should not be interpreted as an analysis under the California Environmental Quality Act (CEQA) Guidelines. Due to the recent changes in CEQA Guidelines, particularly the shift from LOS to Vehicle Miles Traveled (VMT) as the primary metric for assessing transportation impacts, the findings within this TA are not intended to evaluate or conclude the Project's compliance with CEQA.

EXHIBIT 1-1 : LOCATION MAP



1.1 SUMMARY OF FINDINGS

All study area intersections are currently operating at an acceptable LOS during the AM and PM peak hours under Existing (2024) conditions based on the Highway Capacity Manual (HCM) methodology, with the exception of the following intersection:

- Sherman Road & Ethanac Road (#5) – LOS E PM peak hour only

There are no additional study area intersections forecast to operate at an unacceptable LOS with the addition of Project traffic under Existing Plus Project (E+P) traffic conditions.

Under cumulative conditions without the addition of Project traffic, the following study area intersections are anticipated to operate at an unacceptable LOS based on the HCM methodology:

- I-215 Southbound Ramps & Ethanac Road (#1) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Ethanac Road (#2) – LOS F AM and PM peak hours
- Encanto Drive & Ethanac Road (#3) – LOS F AM and PM peak hours
- Trumble Road & Ethanac Road (#4) – LOS F AM and PM peak hours
- Sherman Road & Ethanac Road (#5) – LOS F AM and PM peak hours

There are no additional study area intersections forecast to operate at an unacceptable LOS with the addition of Project traffic. The Project will be responsible for contributing fair share costs towards for the recommended improvements detailed in this TA. The Project is also subject to the City's Development Impact Fee (DIF) and Western Riverside Council of Governments (WRCOG) Transportation Uniform Mitigation Fee (TUMF).

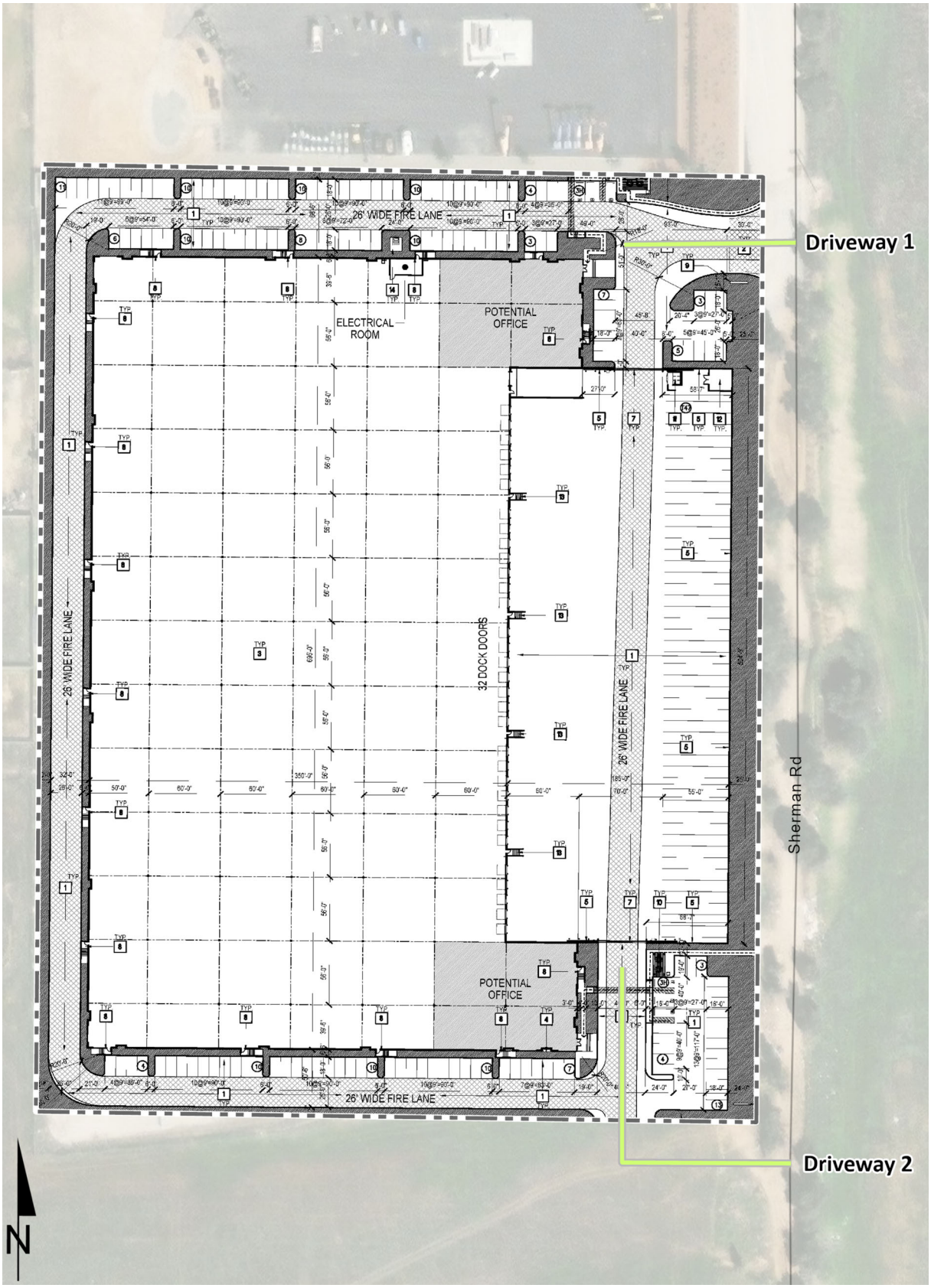
The Project will construct the following improvements in conjunction with development to facilitate site access:

- Project to construct two driveways on Sherman Road. All driveways will be stop-controlled and allow for full turning movements (e.g., no access restrictions).
- Project to construct Sherman Road along the Project's frontage at its ultimate half-section width according to the City of Menifee General Plan and consistent with the City's standards. Additionally, the Project will construct an additional 12 feet of pavement on the east side of Sherman Road for northbound traffic in order to facilitate site access.

1.2 PROJECT OVERVIEW

A preliminary site plan for the proposed Project is shown on Exhibit 1-2. The Project is proposed to consist of the development of a 264,710-square-foot warehouse building which includes 10,000 square feet of office support space on an 11.47-acre site. It is our understanding the proposed Project Planning Application consists of a Plot Plan (PLN23-0171), General Plan Amendment (PLN23-0173) to change the land use from Heavy Industrial to Menifee North Specific Plan, Change of Zone (PLN23-0174) to change zoning from Heavy Industrial to Menifee North Specific Plan, and a Specific Plan Amendment (PLN23-0175) to modify the boundary of the existing Menifee North Specific Plan to include the proposed Project and designate it as Planning Area 2 (Industrial).

EXHIBIT 1-2 : PRELIMINARY SITE PLAN



15796.dwg site

The Project is anticipated to have an opening year of 2026. Access is proposed along Sherman Avenue via two points of access (the southerly driveway being a shared driveway with the property immediately to the south). All driveways are assumed to allow for full access (no turn restrictions).

Regional access to the Project site is available from the I-215 Freeway via the Ethanac Road interchange. Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, 2021. (2) The Project is estimated to generate 456 two-way trip-ends per day on a typical weekday with 46 AM peak hour trips and 49 PM peak hour trips (actual vehicles). The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.3 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2024)
- Existing Plus Project (E+P)
- Existing Plus Ambient Growth Plus Cumulative (EAC) (2026)
- Existing Plus Ambient Growth Plus Project Plus Cumulative (EAPC) (2026)
- Horizon Year (2045) Without Project
- Horizon Year (2045) With Project

1.3.1 EXISTING (2024) CONDITIONS

Information for Existing (2024) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared. Local schools were in session with in-person instruction at the time of the traffic counts. Traffic counts were conducted in April 2024.

1.3.2 E+P CONDITIONS

The E+P analysis determines traffic deficiencies that would occur on the existing roadway system with the addition of Project traffic. The analysis for E+P conditions could be used to identify project-specific deficiencies.

1.3.3 EAC AND EAPC (2026) CONDITIONS

The EAC and EAPC (2026) conditions analysis determines the potential circulation system deficiencies based on a comparison of the EAPC traffic conditions to EAC traffic conditions. The roadway network is similar to Existing conditions except for new connections/driveways to be constructed by the Project. To account for background traffic growth, an ambient growth factor from Existing (2024) conditions of 4.04% (2 percent per year, compounded over 2 years) is included for both EAC and EAPC (2026) traffic conditions. The assumed ambient growth factor is based on the requirements per the City of Menifee and is consistent with other recently completed traffic studies in the area. The EAPC analysis is intended to identify "Opening Year" deficiencies associated with the development of the proposed Project based on the expected background growth within the study area.

Conservatively, this TA estimates the area ambient traffic growth and then adds traffic generated by other known or probable related projects. These related projects are at least in part already accounted for in the assumed ambient growth rates, and some of these related projects may not be implemented and operational within the 2026 Opening Year timeframe assumed for the Project. The resulting traffic growth utilized in this traffic study (ambient growth factor plus traffic generated by related projects) would therefore tend to overstate rather than understate background cumulative traffic deficiencies under 2026 conditions.

1.3.4 HORIZON YEAR (2045) CONDITIONS

Traffic projections for Horizon Year (2045) conditions were derived from the County of Riverside's refined version of the Riverside County Model (RIVCOM) using accepted procedures for model forecast refinement and smoothing. The Horizon Year conditions analysis has been utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the WRCOG TUMF program and the City's DIF, can accommodate the long-range cumulative traffic at the target LOS identified in the City of Menifee (lead agency) Traffic Study Guidelines (dated October 2020). (1) Each of these regional transportation fee programs are discussed in more detail in Section 8 *Local and Regional Funding Mechanisms*.

1.4 STUDY AREA

To ensure that this TA satisfies the City of Menifee's traffic study requirements, Urban Crossroads, Inc. prepared a Project traffic study scoping package for review by City of Menifee staff prior to the preparation of this report. This agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology. The scoping agreement is included in Appendix 1.1 of this TA.

1.4.1 INTERSECTIONS

The 7 study area intersections shown on Exhibit 1-3 and listed in Table 1-1 were selected for evaluation in this TA based on consultation with City of Menifee staff. At a minimum, the City's Guidelines requires the study area to include intersections where the Project is anticipated to contribute 50 or more peak hour trips per guidance from the City of Menifee during the scoping process. (1) The "50 peak hour trip" criteria represent a minimum number of trips at which a typical intersection would have the potential to be substantively affected by a given development proposal. The 50 peak hour trip criterion is a traffic engineering rule of thumb that is accepted and widely used within Riverside County and the City of Menifee for estimating a potential area of influence (i.e., study area).

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection	Jurisdiction	CMP?
1	I-215 SB Ramps & Ethanac Rd.	Caltrans, City of Perris	No
2	I-215 NB Ramps & Ethanac Rd.	Caltrans, City of Perris	No
3	Encanto Dr. & Ethanac Rd.	City of Perris	No
4	Trumble Rd. & Ethanac Rd.	City of Menifee, City of Perris	No
5	Sherman Rd. & Ethanac Rd.	City of Menifee, City of Perris	No
6	Sherman Rd. & Driveway 1	City of Menifee	No
7	Sherman Rd. & Driveway 2	City of Menifee	No

EXHIBIT 1-3 : STUDY AREA

LEGEND:

① = *Existing Intersection Analysis Location*

① = *Future Intersection Analysis Location*

The intent of a Congestion Management Program (CMP) is to directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. The County of Riverside CMP became effective with the passage of Proposition 111 in 1990 and most recently updated in 2019 as part of the Riverside County Long Range Transportation Study. The Riverside County Transportation Commission (RCTC) adopted the 2019 CMP for the County of Riverside in December 2019. (3) There are no study area intersections identified as a Riverside County CMP intersection.

1.4.2 ROADWAY SEGMENTS

Based on consultation with City of Menifee staff, the study area roadway segments selected for evaluation are listed in Table 1-2.

TABLE 1-2: ROADWAY SEGMENT CAPACITY ANALYSIS LOCATIONS

#	Roadway	Segment Limits
1	Ethanac Rd.	I-215 Freeway to Encanto Dr.
2	Ethanac Rd.	Encanto Dr. to Trumble Rd.
3	Ethanac Rd.	Trumble Rd. to Sherman Rd.
4	Sherman Rd.	South of Ethanac Rd.

1.5 DEFICIENCIES

This section provides a summary of deficiencies by analysis scenario. Section 2 *Methodologies* provides information on the methodologies used in the analysis and Section 3 *Area Conditions*, Section 5 *E+P Traffic Conditions*, Section 6 *EAC & EAPC (2026) Conditions*, and Section 7 *Horizon Year (2045) Conditions* includes the detailed analysis. A summary of LOS results for all analysis scenarios is presented in Table 1-3.

TABLE 1-3: SUMMARY OF LOS

		Existing		E + P		EAC (2026)		EAPC (2026)		Horizon Year (2045) Without Project		Horizon Year (2045) With Project	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	**I-215 SB Ramps & Ethanac Rd.**	🟢	🟢	🟢	🟢	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴
2	**I-215 NB Ramps & Ethanac Rd.**	🟢	🟢	🟢	🟢	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴
3	**Encanto Dr. & Ethanac Rd**	🟢	🟢	🟢	🟢	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴
4	**Trumble Rd. & Ethanac Rd**	🟢	🟢	🟢	🟢	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴
5	**Sherman Rd. & Ethanac Rd**	🟢	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴
6	**Sherman Rd. & Driveway 1**	N/A	N/A	N/A	N/A	N/A	N/A	🟢	🟢	N/A	N/A	🟢	🟢
7	**Sherman Rd. & Driveway 2**	N/A	N/A	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢

LEGEND

🟢 = ***A-D***
🟡 = ***E***
🔴 = ***F***

1.5.1 EXISTING (2024) CONDITIONS

Intersections

The following study area intersection is currently operating at an unacceptable LOS during the peak hours under Existing (2024) traffic conditions:

- Sherman Road & Ethanac Road (#5) – LOS F PM peak hour only

Roadway Segments

There are no study area roadway segments currently operating at an unacceptable LOS based on the daily roadway capacity thresholds and minimum LOS criteria.

Off-Ramp Queues

There are no movements that currently experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for Existing (2024) traffic conditions.

1.5.2 E+P CONDITIONS

Intersections

The following study area intersection is anticipated to operate at an unacceptable LOS during the peak hours under E+P traffic conditions, consistent with Existing (2024) conditions:

- Sherman Road & Ethanac Road (#5) – LOS F AM and PM peak hours

Roadway Segments

There are no study area roadway segments anticipated to operate at an unacceptable LOS based on the daily roadway capacity thresholds and minimum LOS criteria under E+P traffic conditions.

Off-Ramp Queues

There are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under E+P traffic conditions.

1.5.3 EAC & EAPC (2026) CONDITIONS

Intersections

The following study area intersections are anticipated to operate at an unacceptable LOS during the peak hours EAC (2026) traffic conditions:

- I-215 Southbound Ramps & Ethanac Road (#1) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Ethanac Road (#2) – LOS F AM and PM peak hours
- Encanto Drive & Ethanac Road (#3) – LOS F AM and PM peak hours
- Trumble Road & Ethanac Road (#4) – LOS F AM and PM peak hours
- Sherman Road & Ethanac Road (#5) – LOS F AM and PM peak hours

There are no additional study area intersections that are anticipated to operate at an unacceptable LOS with the addition of Project traffic under EAPC (2026) traffic conditions.

Roadway Segments

The following study area roadway segments are anticipated to operate at an unacceptable LOS based on the daily roadway capacity thresholds and minimum LOS criteria under both EAC and EAPC (2026) traffic conditions:

- Ethanac Road, from I-215 Freeway to Encanto Drive (#1) – LOS F
- Ethanac Road, from Encanto Drive to Trumble Road (#2) – LOS F
- Ethanac Road, from Trumble Road to Sherman Road (#3) – LOS F

Off-Ramp Queues

The following movements are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under both EAC and EAPC (2026) traffic conditions:

- I-215 Southbound Ramps & Ethanac Road (#1) southbound right – AM and PM peak hours
- I-215 Northbound Ramps & Ethanac Road (#2) northbound shared left-through – PM peak hour only
- I-215 Northbound Ramps & Ethanac Road (#2) northbound right – AM and PM peak hours

1.5.4 HORIZON YEAR (2045) CONDITIONS

Intersections

The following study area intersections are anticipated to operate at an unacceptable LOS under Horizon Year (2045) Without Project traffic conditions, consistent with EAC (2026) conditions:

- I-215 Southbound Ramps & Ethanac Road (#1) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Ethanac Road (#2) – LOS F AM and PM peak hours
- Encanto Drive & Ethanac Road (#3) – LOS F AM and PM peak hours
- Trumble Road & Ethanac Road (#4) – LOS F AM and PM peak hours
- Sherman Road & Ethanac Road (#5) – LOS F AM and PM peak hours

There are no additional study area intersections that are anticipated to operate at an unacceptable LOS with the addition of Project traffic under Horizon Year (2045) With Project traffic conditions.

Roadway Segments

The following study area roadway segments are anticipated to operate at an unacceptable LOS based on the daily roadway capacity thresholds and minimum LOS criteria under both Horizon Year (2045) Without and With Project traffic conditions:

- Ethanac Road, from I-215 Freeway to Encanto Drive (#1) – LOS F
- Ethanac Road, from Encanto Drive to Trumble Road (#2) – LOS F
- Ethanac Road, from Trumble Road to Sherman Road (#3) – LOS F

Off-Ramp Queues

The following movements are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows both Horizon Year (2045) Without and With Project traffic conditions:

- I-215 Southbound Ramps & Ethanac Road (#1) southbound right – AM and PM peak hours
- I-215 Northbound Ramps & Ethanac Road (#2) northbound shared left-through – AM and PM peak hours
- I-215 Northbound Ramps & Ethanac Road (#2) northbound right – AM and PM peak hours

1.6 RECOMMENDATIONS

1.6.1 SITE ADJACENT AND SITE ACCESS RECOMMENDATIONS

The following recommendations are based on the minimum improvements needed to accommodate site access and maintain acceptable peak hour operations for the proposed Project. The site adjacent recommendations are shown on Exhibit 1-4.

Recommendation 1 – Sherman Road & Driveway 1 (#6) – The following improvements are necessary to accommodate site access:

- Project to install a stop control on the eastbound approach and construct a shared left-right turn lane (Project driveway).
- Project to construct a northbound left turn lane with a minimum of 100 feet of storage.

Recommendation 2 – Sherman Road & Driveway 2 (#7) – The following improvements are necessary to accommodate site access:

- Project to install a stop control on the eastbound approach and construct a shared left-right turn lane (Project driveway).
- Project to construct a northbound left turn lane with a minimum of 100 feet of storage.

Recommendation 3 – Sherman Road is a north-south oriented roadway located on the Project's eastern boundary. Project to construct Sherman Road at its ultimate half-section width along the Project's frontage as a Major Roadway (100-foot right-of-way) from the Project's southern boundary to the Project's northern boundary, consistent with the City's standards. Project will construct an additional 12 feet of pavement on the east side of Sherman Road to facilitate two-way access.

On-site traffic signing and striping should be implemented agreeable with the provisions of the California Manual on Uniform Traffic Control Devices (CA MUTCD) and in conjunction with detailed construction plans for the Project site.

Sight distance at each project access point should be reviewed with respect to standard California Department of Transportation (Caltrans) and City of Menifee sight distance standards at the time of preparation of final grading, landscape, and street improvement plans.

1.6.2 OFF-SITE RECOMMENDATIONS

A summary of the off-site intersection improvements is provided in Table 1-4. For those improvements listed in Table 1-4 and not constructed as part of the Project, the Project Applicant's responsibility for the Project's contributions towards deficient intersections is fulfilled through payment of fees or fair share that would be assigned to construction of the identified recommended improvements. The Project Applicant would be required to pay fair share fees consistent with the City's requirements (see Section 8 *Local and Regional Funding Mechanisms*).

EXHIBIT 1-4 : SITE ACESS RECOMMENDATIONS

LEGEND

- (0) = *Existing Intersection Analysis Location*
- (0) = *Future Intersection Analysis Location*
- = *Traffic Signal*
- = *Stop Sign*
- = *Traffic Lane*

TABLE 1-4: SUMMARY OF IMPROVEMENTS

#	Intersection	Jurisdiction	Existing (2024)	E+P	EAPC (2026)	Horizon Year (2045) With Project	Improvements in DIF, TUMF, etc.[1,2]	Project Responsibility	Project Fair Share
1	I-215 SB Ramps & Ethanac Rd.	Perris, Caltrans	None	None	Add 2nd EB through lane	Same	Yes (TUMF)	Fees	0.7%
					Add 2nd WB left turn lane	Not Applicable	No	Fair Share	
					Add SB left turn lane (modify southbound approach to provide one left-turn, one right-turn, and one shared left-through-right turn lane)	Same	No	Fair Share	
						Modify interchange to partial cloverleaf	Yes (TUMF)	Fees	
						Add 2nd SB right turn lane (modify southbound approach to provide one left-turn, one shared left-through lane, and two right-turn lanes)	Yes (TUMF)	Fees	
						Add 3rd EB through lane	Yes (TUMF)	Fees	
						Add 3rd WB through lane	Yes (TUMF)	Fees	
						Modify EB right turn lane to a free-right turn lane	Yes (TUMF)	Fees	
						Remove WB left turn lane	Yes (TUMF)	Fees	
						Add WB free-right turn lane	Yes (TUMF)	Fees	
2	I-215 NB Ramps & Ethanac Rd.	Perris, Caltrans	None	None	Add 2nd EB through lane	Same	Yes (TUMF)	Fees	1.5%
					Add 2nd WB through lane	Same	Yes (TUMF)	Fees	
					Add 2nd EB left turn lane	Not Applicable	No	Fair Share	
					Add NB left turn lane	Same	Yes (TUMF)	Fees	
						Modify interchange to partial cloverleaf	Yes (TUMF)	Fees	
						Add 2nd NB right turn lane	Yes (TUMF)	Fees	
						Add 3rd EB through lane	Yes (TUMF)	Fees	
						Remove EB left turn lane	Yes (TUMF)	Fees	
						Add EB free-right turn lane	Yes (TUMF)	Fees	
						Add 3rd WB through lane	Yes (TUMF)	Fees	
						Modify WB right turn lane to a free-right turn lane	Yes (TUMF)	Fees	
3	Encanto Dr. & Ethanac Rd.[3]	Perris	None	None	Install a traffic signal	Same	Yes (TUMF)	Fees	2.5%
					Add 2nd EB through lane	Same	Yes (TUMF)	Fees	
					Add 2nd WB through lane	Same	Yes (TUMF)	Fees	
					Add EB right turn lane	Same	No	Fair Share	
						Add NB left turn lane	No	Fair Share	
						Add 3rd EB through lane	No	Fair Share	
						Add 3rd WB through lane	No	Fair Share	

#	Intersection	Jurisdiction	Existing (2024)	E+P	EAPC (2026)	Horizon Year (2045) With Project	Improvements in DIF, TUMF, etc.[1,2]	Project Responsibility	Project Fair Share
4	Trumble Rd. & Ethanac Rd.	Perris, Menifee	None	None	Same	Same	No	Fair Share	2.0%
					Add 2nd EB through lane	Same	Yes (TUMF)	Fees	
					Add 2nd WB through lane	Same	Yes (TUMF)	Fees	
						Add 3rd EB through lane	No	Fair Share	
						Add 3rd WB through lane	No	Fair Share	
5	Sherman Rd. & Ethanac Rd.	Perris, Menifee, County	Add EB left turn lane	Same	Same	Same	No	Fair Share	2.2%
			Add WB left turn lane	Same	Same	Same	No	Fair Share	
				Additional pavement required on the NW and SW corners	Same	Same	No	Construct	
					Install a traffic signal	Same	No	Fair Share	
					Add NB left turn lane	Same	No	Fair Share	
					Add SB left turn lane	Same	No	Fair Share	
					Add 2nd NB left turn lane	Same	No	Fair Share	
					Add SB right turn lane	Same	No	Fair Share	
					Add 2nd EB through lane	Same	Yes (TUMF)	Fees	
					Add EB right turn lane with overlap phasing	Same	No	Fair Share	
					Add 2nd WB through lane	Same	Yes (TUMF)	Fees	
					Add WB right turn lane	Same	No	Fair Share	
						Add NB right turn lane	No	Fair Share	
						Add 2nd EB left turn lane	No	Fair Share	
						Add 3rd EB through lane	No	Fair Share	
						Add 2nd WB left turn lane	No	Fair Share	
						Add 3rd WB through lane	No	Fair Share	

[1] Improvements included in TUMF/City DIF programs have been identified as such.

[2] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at the discretion of the City.

[3] Improvements are only required if the intersection is not vacated by the Perris Towne Center Project.

1.6.3 QUEUING ANALYSIS AT THE PROJECT DRIVEWAYS

A queuing analysis was conducted at the study area intersections for Horizon Year (2045) With Project traffic conditions to determine the turn pocket lengths necessary to accommodate 95th percentile queues. The analysis was conducted for the weekday AM and weekday PM peak hours. The results have been provided in Appendix 1.2.

SimTraffic is designed to model networks of signalized and unsignalized intersections, with the primary purpose of checking and fine-tuning signal operations. SimTraffic uses the input parameters from Synchro to generate random simulations. The 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed; it is simply based on statistical calculations (or Average Queue plus 1.65 standard deviations). Many agencies utilize the 95th percentile queues for design purposes. A vehicle is considered queued whenever it is traveling at less than 10 feet/second. The random simulations generated by SimTraffic have been utilized to determine the 95th percentile queue lengths observed for each turn movement. A SimTraffic simulation has been recorded five (5) times, during the weekday AM and weekday PM peak hours, and has been seeded for 15-minute periods with 60-minute recording intervals.

1.7 TRUCK ACCESS AND CIRCULATION

Due to the typical wide turning radius of large trucks, a truck turning template has been overlaid on the site plan at the Project driveways anticipated to be utilized by heavy trucks and at Sherman Road and Ethanac Road (#5) in order to determine appropriate curb radii and to verify that trucks will have sufficient space to execute turning maneuvers (see Exhibit 1-5). Driveway 2 should be modified to a 50-foot curb radius at the shared access point, as shown on Exhibit 1-5, in order to accommodate the ingress of heavy trucks. Based on the existing right-of-way, additional pavement is required on the northwest and southwest corners of the intersection of Sherman Road and Ethanac Road (#5) in order to accommodate the ingress and egress of heavy trucks, respectively.

The northern driveway (Driveway 1) has been additionally analyzed to ensure it can be safely utilized as a full access driveway. Both interim and ultimate street section conditions were evaluated and should not present any safety issues. Additionally, Driveway 1 can accommodate the queuing of three trucks without extending to the street (See Exhibit 1-6).

1.8 CONCLUSION

Based on the analyses and the recommended improvements outlined in this TA, it is concluded that the proposed Project will not result in any substantial increase in hazards due to geometric design features, both onsite and offsite.

EXHIBIT 1-5 : TRUCK ACCESS (1 OF 4)

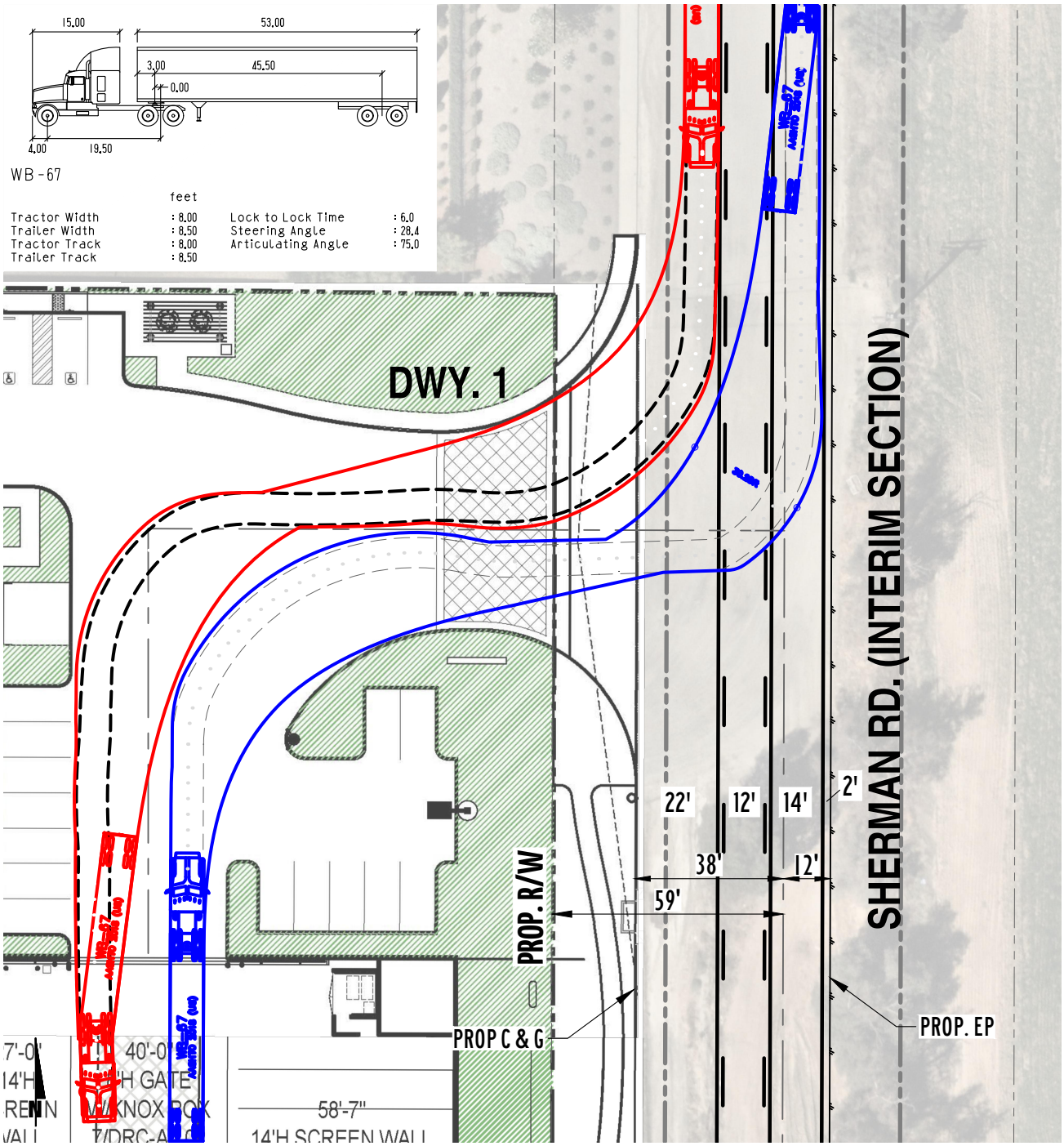


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EXHIBIT 1-5 : TRUCK ACCESS (2 OF 4)

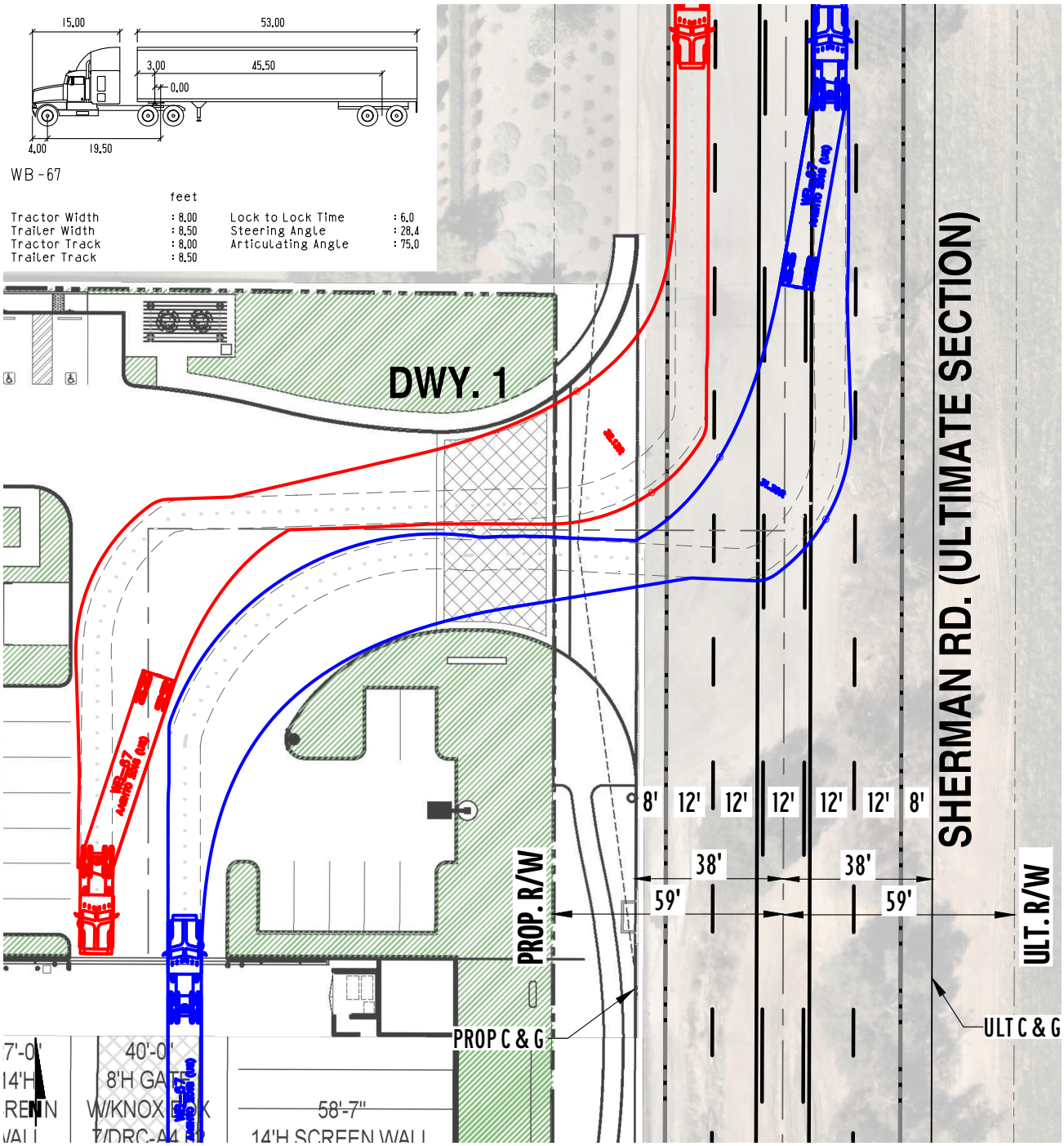

EXHIBIT 1-5 : TRUCK ACCESS (3 OF 4)

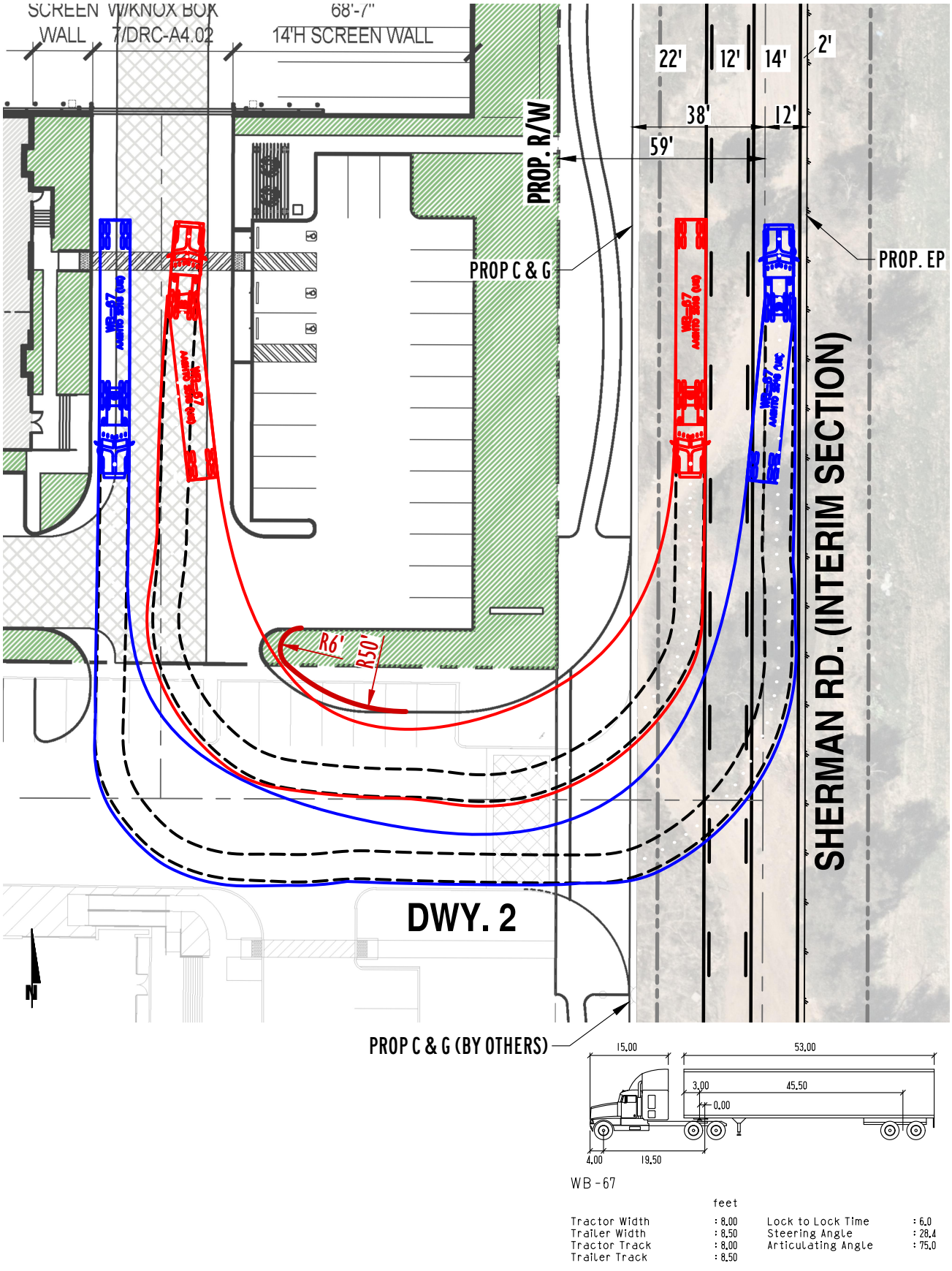

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EXHIBIT 1-5 : TRUCK ACCESS (4 OF 4)

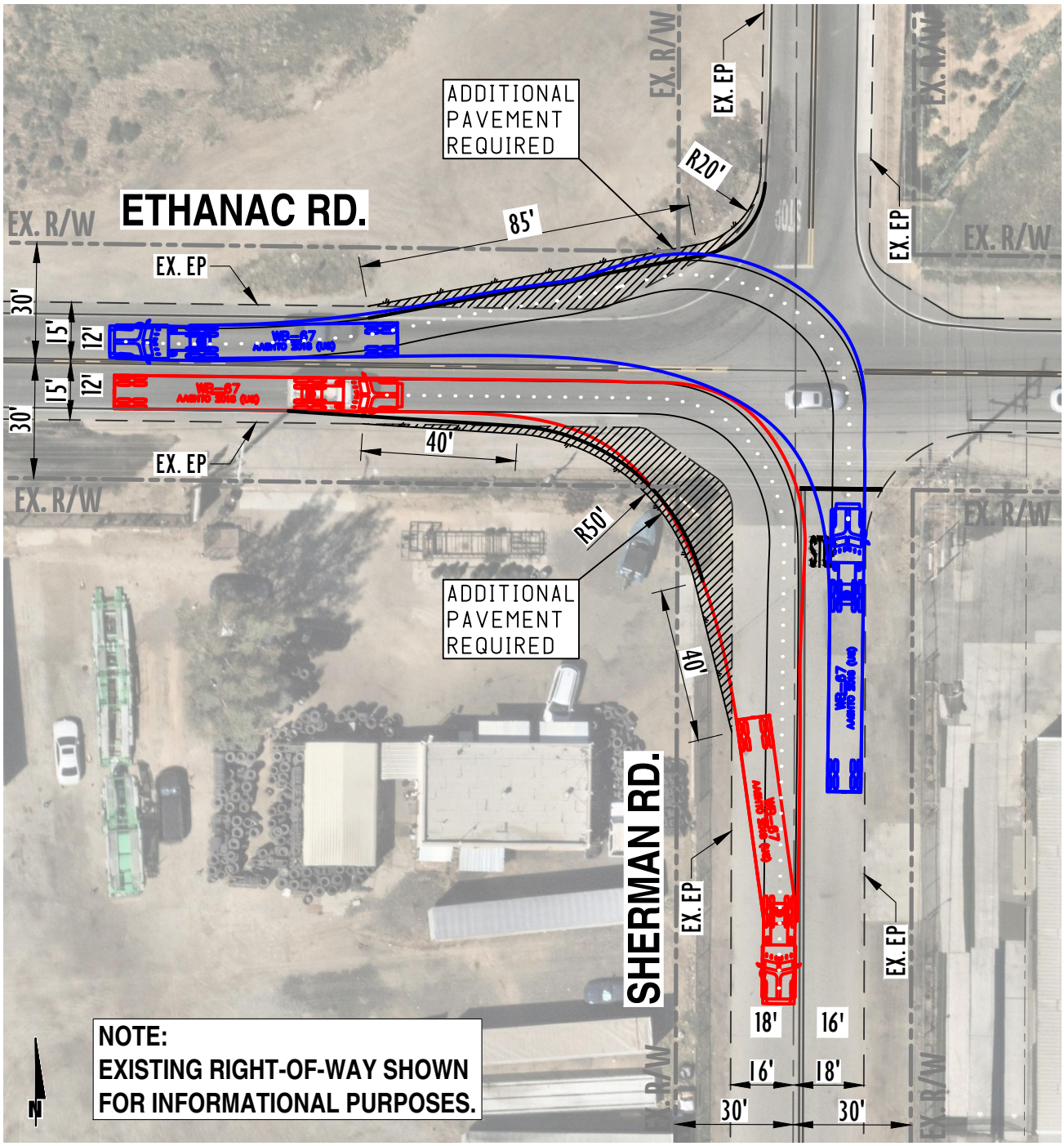
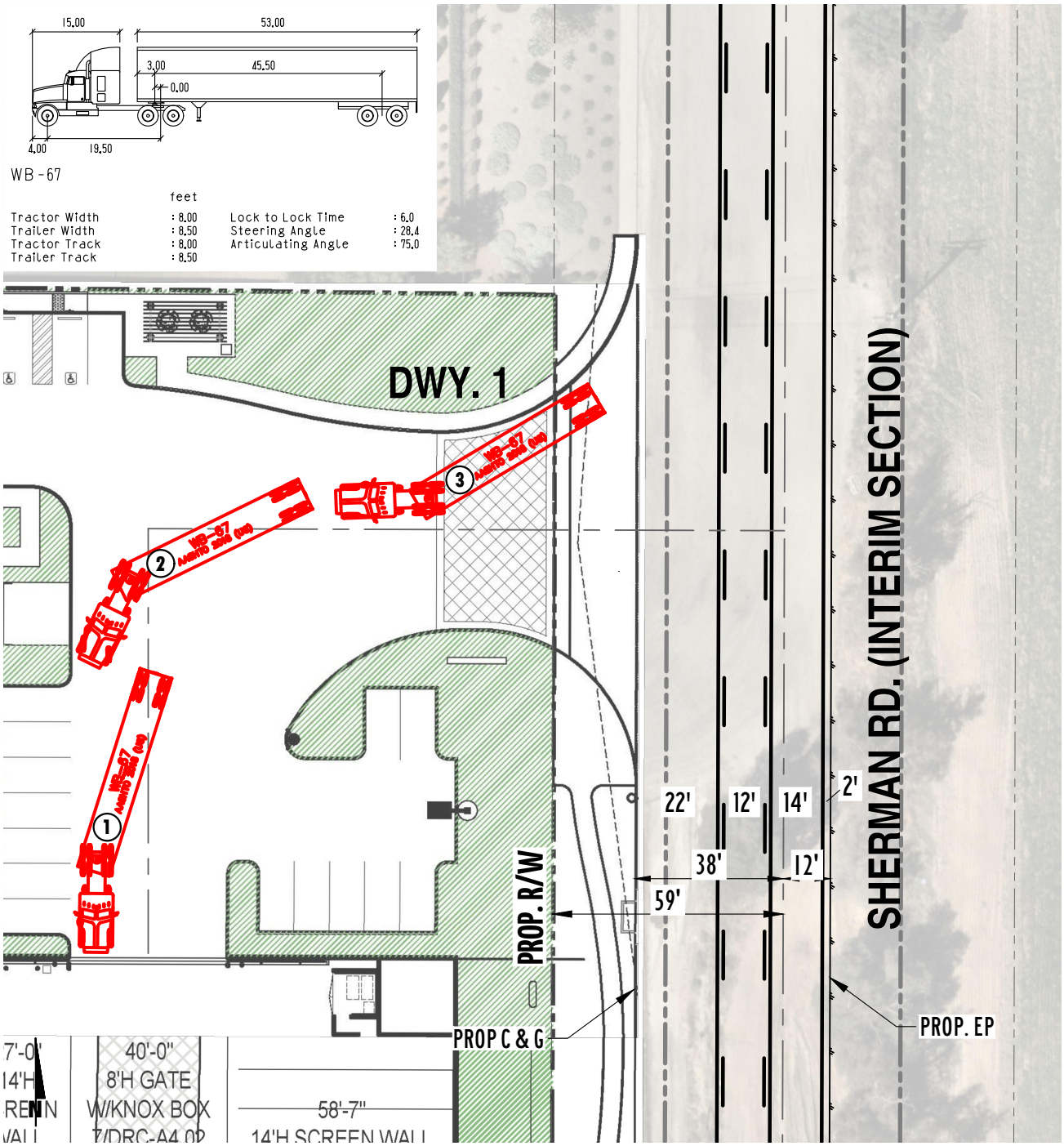


EXHIBIT 1-6 : TRUCK STACKING



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2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are consistent with City of Menifee's Traffic Study Guidelines.

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors, such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing a breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The 7th Edition Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (4) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Menifee requires signalized intersection operations analysis based on the methodology described in the HCM. (4) Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections, LOS is related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1. A saturation flow rate of 1900 vehicles per hour per lane (vphpl) has been utilized and is consistent with the rates utilized in other nearby projects within the City of Menifee and throughout the County of Riverside.

The traffic modeling and signal timing optimization software package Synchro (Version 12) is utilized to analyze signalized intersections within the study area. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F

Source: HCM, 7th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Customary practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g., PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (4)

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Menifee requires the operations of unsignalized intersections to be evaluated using the methodology described in the HCM. (4) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2). At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole.

For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. Delay for the intersection is reported for the worst individual movement at a two-way stop-controlled intersection. For all-way stop controlled intersections, LOS is computed for the intersection as a whole (average delay).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Little or no delays.	0 to 10.00	A
Short traffic delays.	10.01 to 15.00	B
Average traffic delays.	15.01 to 25.00	C
Long traffic delays.	25.01 to 35.00	D
Very long traffic delays.	35.01 to 50.00	E
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F

Source: HCM, 7th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices *(CA MUTCD)* for all study area intersections. (5)

The signal warrant criteria for Existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The Caltrans CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (5) Specifically, this TA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing study area intersections for all analysis scenarios. Warrant 3 is appropriate to use for this TA because it provides specialized warrant criteria for intersections with urban characteristics (e.g., adjacent major streets operating at or below 40 miles per hour) or rural characteristics (e.g., adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets. Traffic signal warrant analyses were performed for the following study area intersections shown in Table 2-3.

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection
3	Encanto Dr. & Ethanac Rd.
5	Sherman Rd. & Ethanac Rd.
6	Sherman Rd. & Driveway 1
7	Sherman Rd. & Driveway 2

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *E+P Traffic Conditions*, Section 6 *EAC & EAPC (2026) Conditions*, and Section 7 *Horizon Year (2045) Conditions* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 ROADWAY SEGMENT CAPACITY ANALYSIS

Roadway segment operations have been evaluated using the Roadway Segment Capacity Thresholds provided in the City's Guidelines. (6) These roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. In other words, while using ADT for planning purposes is suitable with regards to evaluating potential volume to capacity with future forecasts, it is not suitable for operational analysis because it does not account for the factors listed previously. As such, where the ADT based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis and progression analysis are undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity.

2.5 OFF-RAMP QUEUING ANALYSIS

A queuing analysis has been performed for the study area off-ramp intersections at the I-215 Freeway at the Ethanac Road interchange. Specifically, the queuing analysis is utilized to identify any potential queuing and "spill back" onto the I-215 Freeway mainline from the off-ramps or out of the turn pockets.

The traffic progression analysis tool and HCM intersection analysis program, Synchro, has been used to assess the potential deficiencies/needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps have been based upon the 95th percentile queue resulting from the Synchro progression analysis. There are two footnotes which appear on the Synchro outputs. One footnote indicates if the 95th percentile cycle exceeds capacity. Traffic is simulated for two complete cycles of the 95th percentile traffic in Synchro in order to account for the effects of spillover between cycles. In practice, the 95th percentile queue shown will rarely be exceeded and the queues shown with the footnote are acceptable for the design of storage bays. The other footnote indicates whether or not the volume for the 95th percentile queue is metered by an upstream signal. If the upstream intersection is at or near capacity, the 50th percentile queue represents the maximum queue experienced.

2.6 MINIMUM ACCEPTABLE LEVELS OF SERVICE (LOS)

2.6.1 CITY OF MENIFEE

Per Policy C-1.2 of the City of Menifee General Plan, the following LOS will be utilized for study area intersections located within the City:

Require development to mitigate its traffic impacts and achieve a peak hour Level of Service (LOS) D or better at intersections, except at constrained intersections at close proximity to the I-215 where LOS E may be permitted.

In an effort to conduct a conservative analysis, we have applied LOS D as the threshold for all intersections. Therefore, any intersection operating at LOS E or F will be considered deficient for the purposes of this analysis. (7)

2.6.2 CITY OF PERRIS

The definition of an intersection deficiency has been obtained from the City of Perris General Plan. LOS D along all City maintained roads (including intersections) and LOS D along I-215 and SR-74 (including intersections with local streets and roads). An exception to the local road standard is LOS E at intersections of any Arterials and Expressways with SR-74, the Ramona-Cajalco Expressway, or at I-215 Freeway ramps. (8) For the purposes of this traffic analysis, LOS D will be considered the acceptable threshold for all intersections within the study area.

2.7 LEVEL OF SERVICE (LOS) REQUIREMENTS

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies. Consistent with the City of Menifee's traffic study guidelines, the following criteria shall be used to determine if the addition of Project traffic would be responsible for LOS deficiencies and whether feasible intersection improvements should be identified to improve performance: (1)

- If the pre-Project condition at an intersection is at or better than the minimum acceptable LOS (LOS D) and the addition of project trips results in unacceptable LOS (LOS E or LOS F).
- If the pre-Project condition is LOS E or F and the Project adds 50 or more peak hour trips to the intersection or roadway segment. This type of impact would be considered a "cumulative" project impact in which the project would be required to contribute a fair share payment toward reducing the impact.

2.8 PROJECT FAIR SHARE CALCULATION METHODOLOGY

Improvements found to be included in the City of Menifee's DIF program and WRCOG TUMF, will be identified as such. For improvements that do not appear to be in either of the pre-existing fee programs, a fair share financial contribution based on the Project's fair share impact may be imposed in order to mitigate the Project's share of impacts in lieu of construction. It should be noted that fair share calculations are for informational purposes only and the City Traffic Engineer will determine the appropriate improvements to be implemented by a project (to be identified in the conditions of approval).

The Project's fair share cost of improvements would be determined based on the following equation, which is the ratio of Project traffic to new traffic, where new traffic is total future traffic less existing baseline traffic:

Project Fair Share % = Project Traffic / (EAPC (2026) Traffic – Existing Traffic)

3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Menifee General Plan Circulation Network, and a review of existing peak hour intersection operations, traffic signal warrant, roadway segment, and freeway off-ramp queuing analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with City of Menifee staff (Appendix 1.1), the study area includes a total of 7 existing and future intersections as shown previously on Exhibit 1-3. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF MENIFEE GENERAL PLAN CIRCULATION ELEMENT

As noted previously, the Project site is located within the City of Menifee. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Menifee General Plan Circulation Element, are described subsequently. Exhibit 3-2 shows the City of Menifee General Plan Circulation Element.

Expressways are six-to-eight travel lines and include a raised or graded median with left shoulders. These roadways typically have a 200-to-216-foot right-of-way and a 106-to-152-foot curb-to-curb measurement. These facilities primarily serve through traffic to which access from abutting property shall be kept at a minimum. The following roadway is classified as an Expressway within the study area:

- Ethanac Road

Major Roadways are four-lane roadways and may include a painted median. These roadways typically have a 118-foot right-of-way and a 76-foot curb-to-curb measurement. These roadways typically direct traffic through major development areas. The following roadways within the study area are classified as a Major Roadway:

- Encanto Drive
- Sherman Road

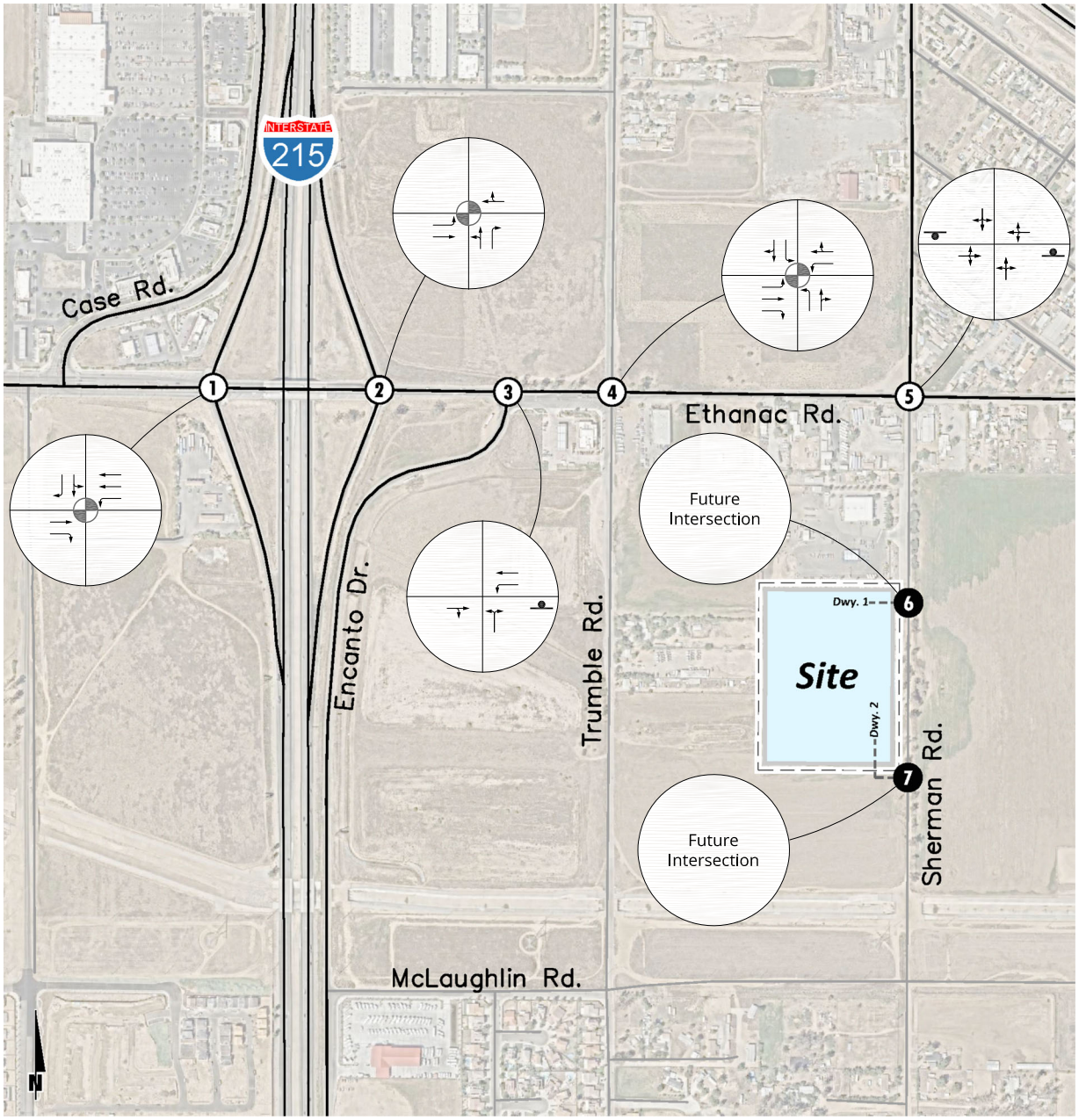
Collector Streets are two-lane roadways and provide on-street parking on both sides. These roadways typically have a 74-foot right-of-way and a 44-foot curb-to-curb measurement. These roadways provide connections to secondary streets, arterials, and freeways, with most traffic being through-traffic or intra-city traffic. The following study area roadway within the study area is classified as a Collector Street:

- Trumble Road

3.3 CITY OF PERRIS GENERAL PLAN CIRCULATION ELEMENT

The majority of the study area roadways share a border with the City of Perris. Exhibit 3-3 illustrates the City of Perris Circulation Plan.

EXHIBIT 3-1 : EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



LEGEND

0 = *Existing Intersection Analysis Location*

0 = *Future Intersection Analysis Location*

= *Traffic Signal*

= *Stop Sign*

= *Traffic Lane*

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EXHIBIT 3-2 : CITY OF MENIFEE CIRCULATION ELEMENT

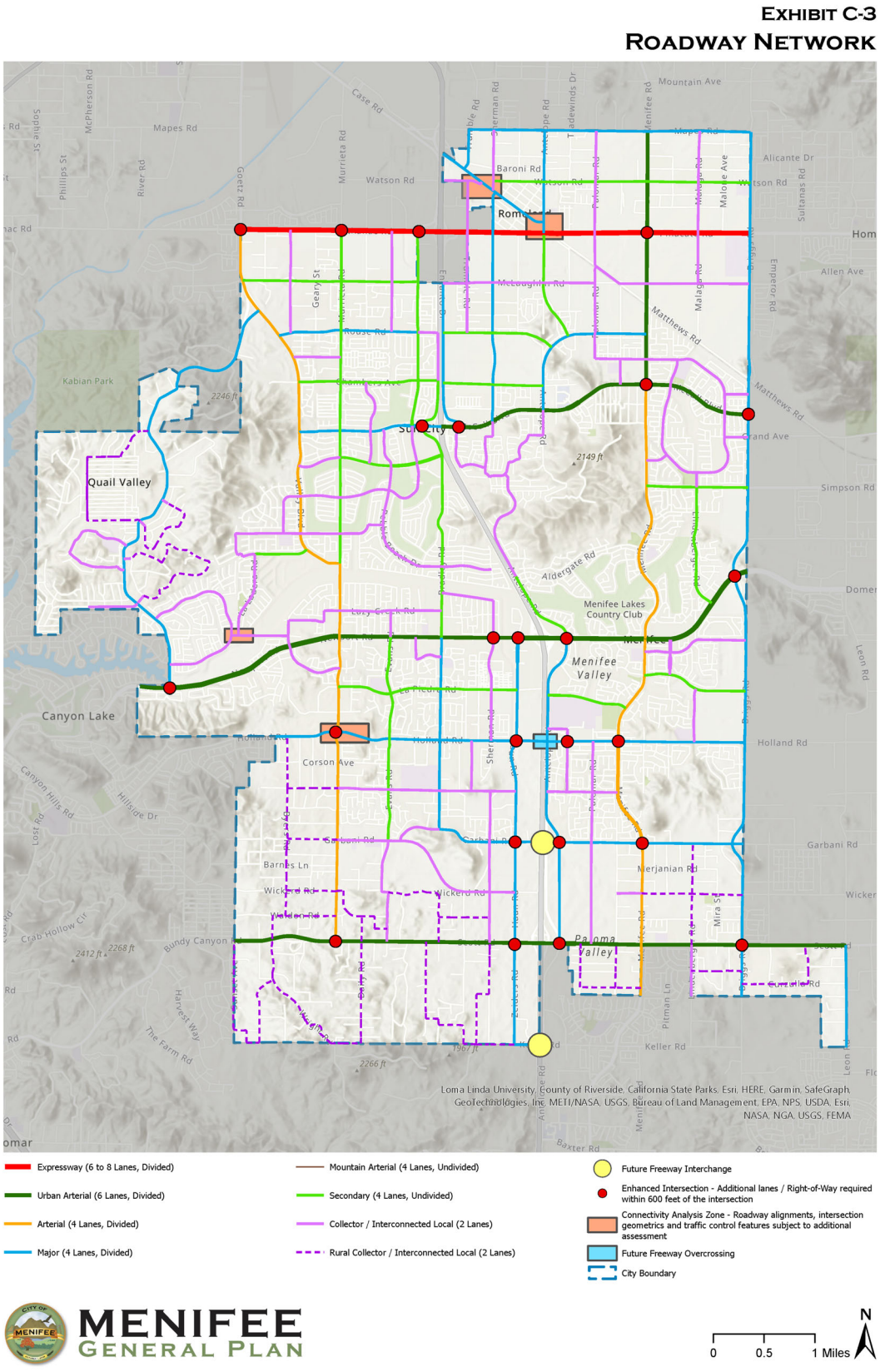

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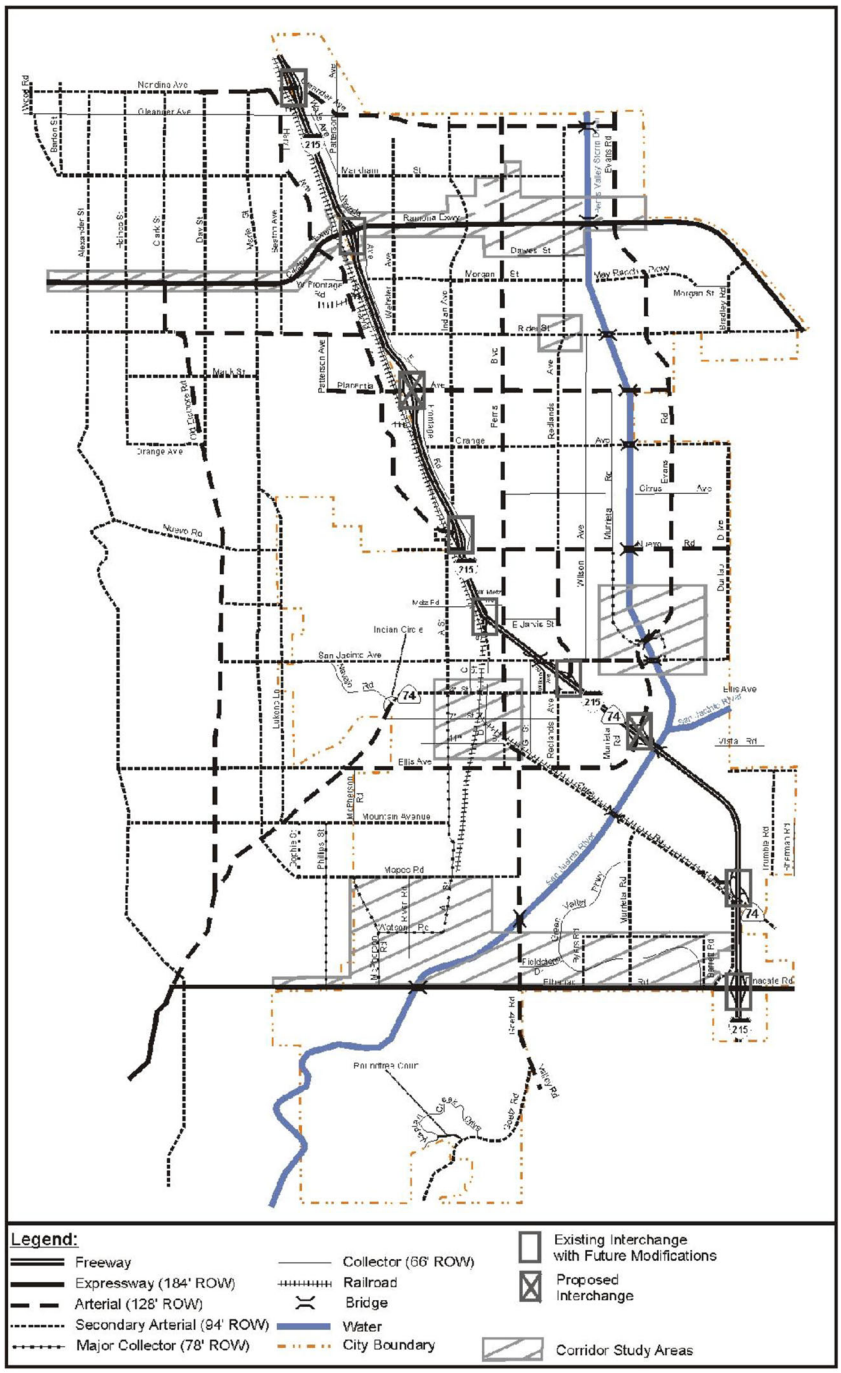
EXHIBIT 3-3 : CITY OF PERRIS GENERAL PLAN CIRCULATION ELEMENT

Exhibit CE-12: City of Perris Future Roadway Network



3.4 BICYCLE & PEDESTRIAN FACILITIES

Exhibit 3-4 illustrates the City of Menifee General Plan proposed bike facilities. As shown on Exhibit 3-4, there is a proposed Community On-Street Bike Lane (Class II) along Sherman Road. There are proposed Class II Community On-Street Bike Lanes along Antelope Road, Watson Road, and Encanto Drive within the vicinity of the Project site. Exhibit 3-5 shows the existing pedestrian facilities within the study area. As shown on Exhibit 3-5, there are limited pedestrian facilities in the vicinity of the Project site. Field observations and traffic counts conducted in November 2024 indicate light pedestrian and bicycle activity within the study area associated with the adjacent commercial uses.

3.5 TRANSIT SERVICE

The study area is currently served by Riverside Transit Authority (RTA), a public transit agency serving various jurisdictions within Riverside County. The existing transit routes within the study area are shown on Exhibit 3-6. Based on a review of the existing transit routes within the vicinity of the proposed Project there are no existing routes along the study area roadways. However, RTA Route 28 runs along Sherman Road north of Jackson Avenue, and down Jackson Avenue to Matthews Road. There are existing stops along Jackson Avenue with the closest stop being approximately 2,700 feet from the Project at Sherman Road and Jackson Avenue which could potentially serve the Project site. Service times for the stops along RTA Route 28 are approximately 40-50 minutes. Transit service is reviewed and updated by RTA periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. As such, it is recommended that the Project Applicant work in conjunction with RTA to potentially provide bus service to the site.

3.6 TRUCK ROUTES

The City of Menifee's potential truck routes are shown on Exhibit 3-7 and City of Perris' map is shown on Exhibit 3-8. Ethanac Road is identified as a truck route for both agencies, between the I-215 Freeway and Sherman Road. These truck route maps have been utilized to route truck traffic from the Project and future cumulative development projects throughout the study area.

EXHIBIT 3-4 : CITY OF MENIFEE PROPOSED BIKEWAY NETWORK

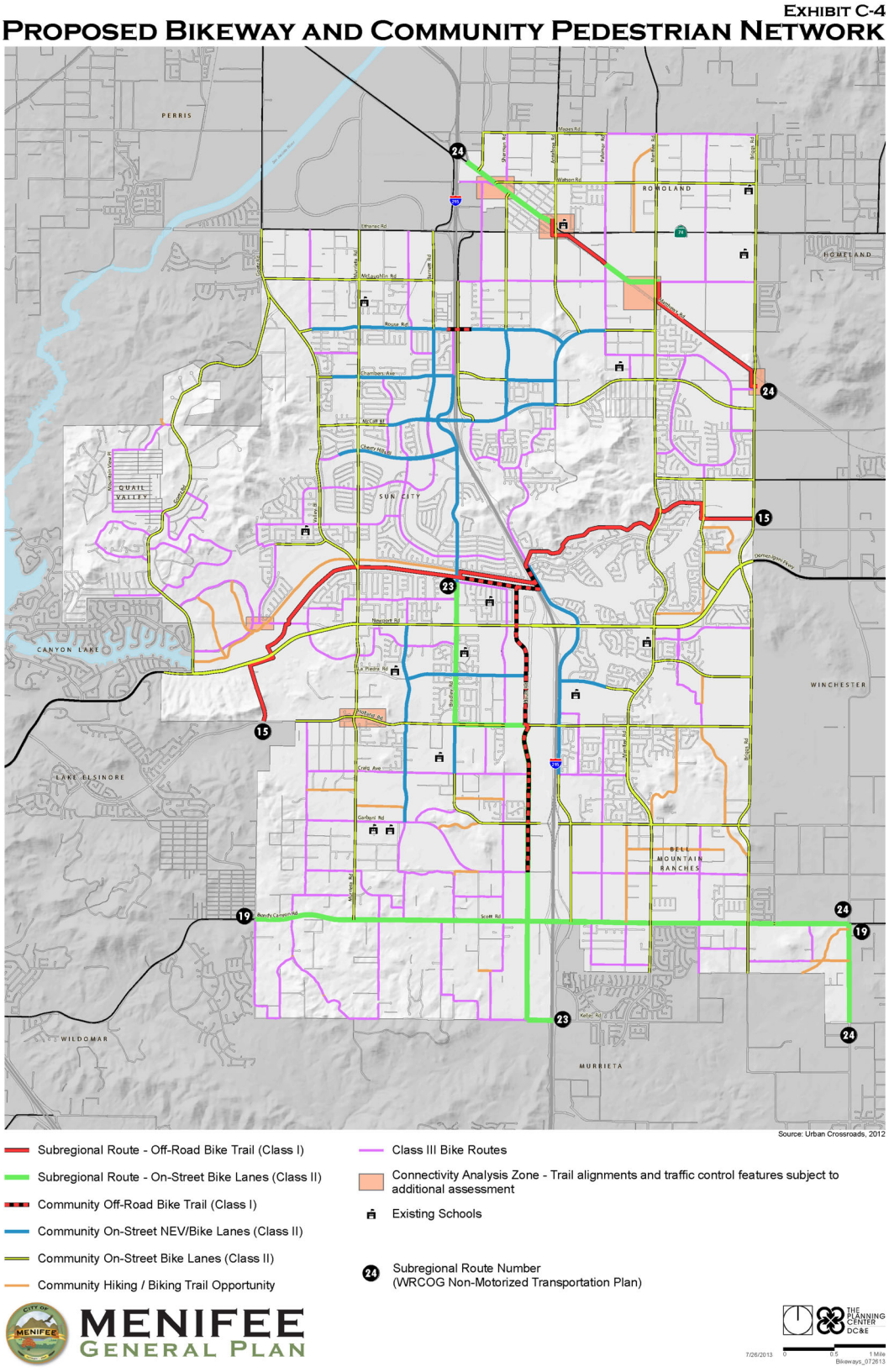
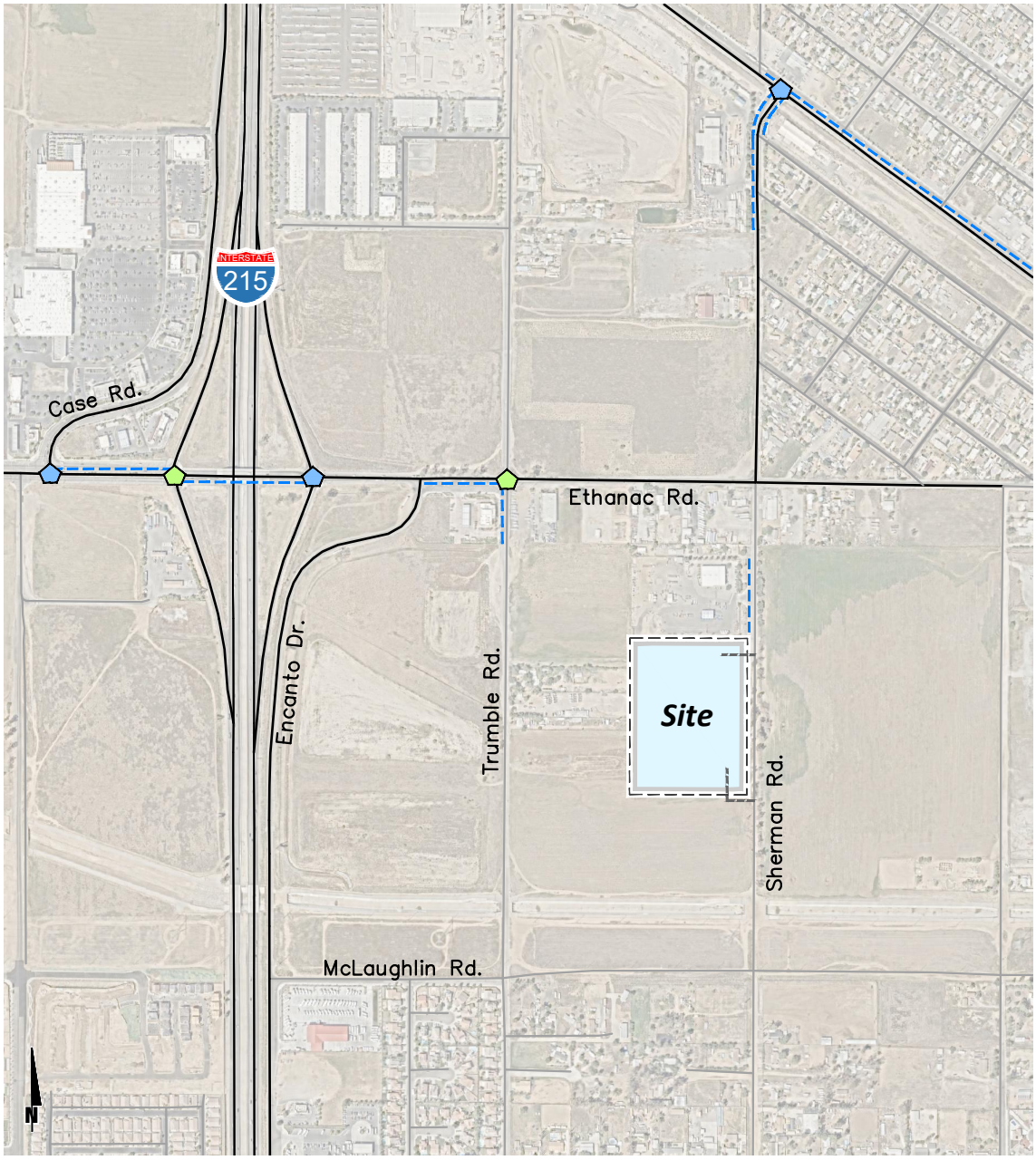


EXHIBIT 3-5 : EXISTING PEDESTRIAN FACILITIES



LEGEND:

- = 1 Approach
- = 2 Approaches
- = Sidewalks

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EXHIBIT 3-6 : EXISTING TRANSIT FACILITIES

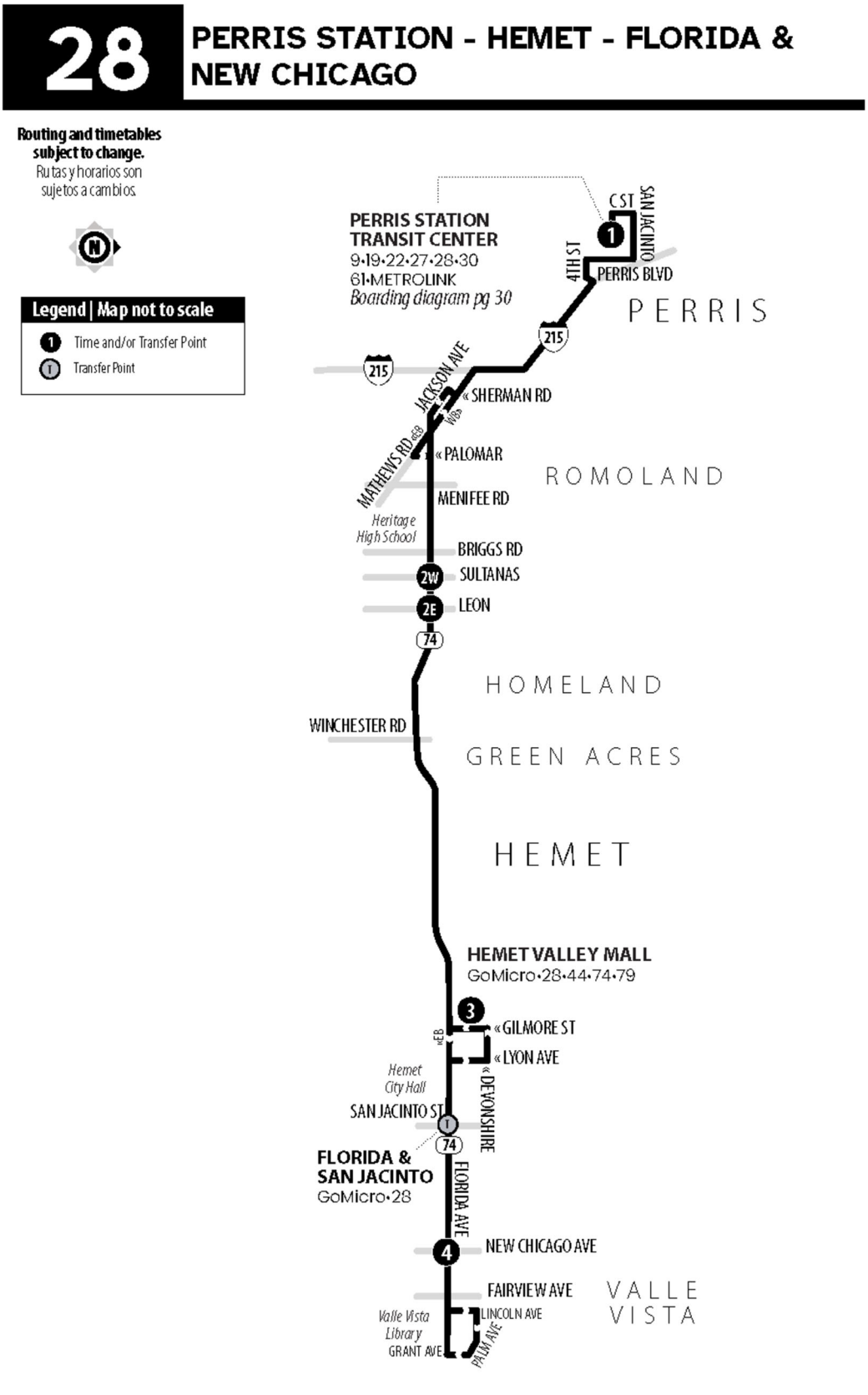
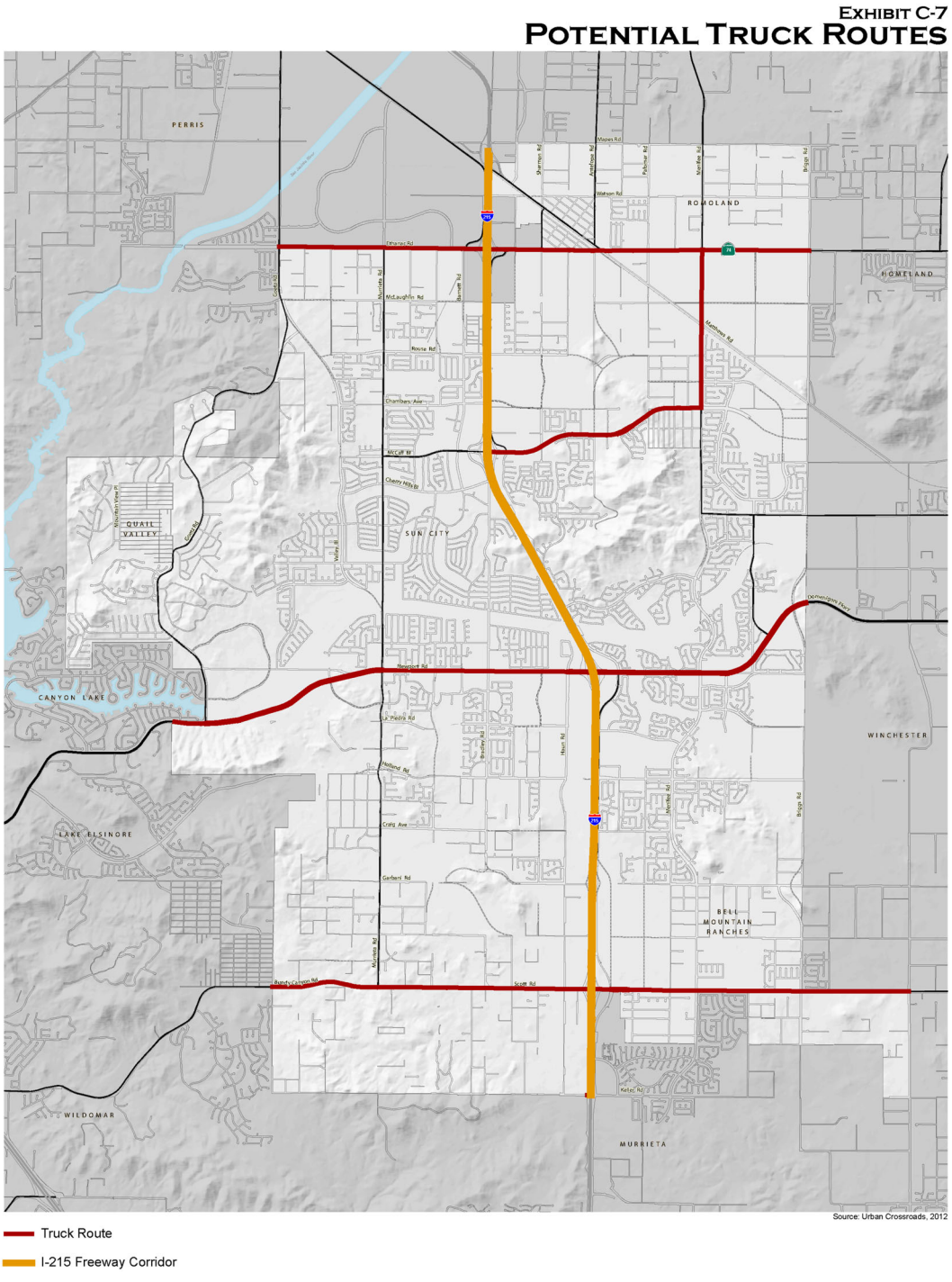


EXHIBIT 3-7 : CITY OF MENIFEE POTENTIAL TRUCK ROUTES



The designated truck routes within the City have been selected because of their accessibility to the freeway and key industrial/commercial areas. The designation of truck routes does not prevent trucks from using other roads or streets to make deliveries to individual addresses, or for other reasons as defined in the State of California *Motor Vehicle Code*.

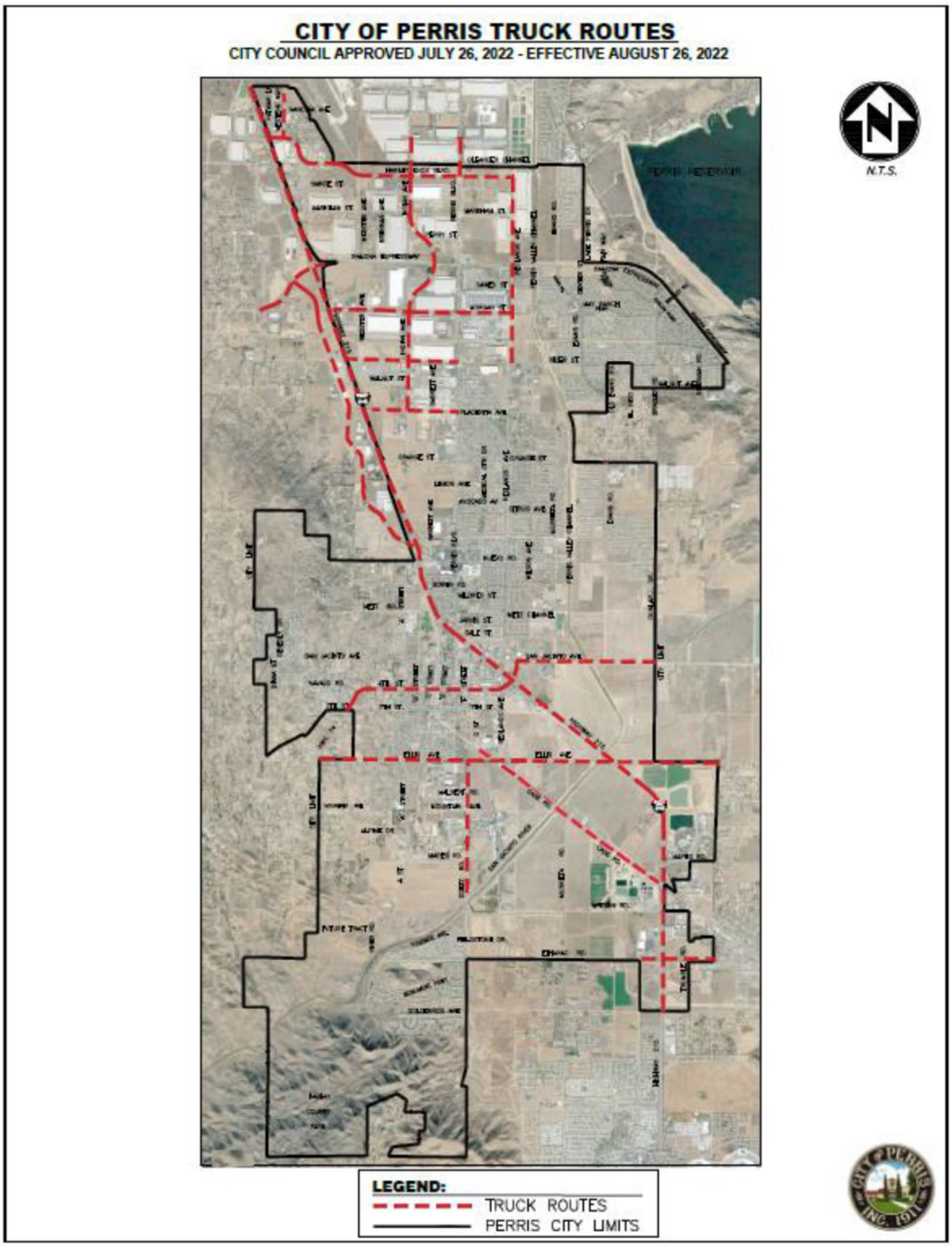
MENIFEE GENERAL PLAN

THE PLANNING CENTER DC&E

7/26/2013 0 0.5 1 Mile Truck_Routes_072613

EXHIBIT 3-8 : CITY OF PERRIS TRUCK ROUTES

Exhibit CE-9: Existing Designated Truck Routes



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3.7 EXISTING (2024) TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in April 2024. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The 2024 weekday AM and weekday PM peak hour count data is representative of typical weekday peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes and near-by schools were in session and operating on normal schedules. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. Existing weekday ADT volumes are shown on Exhibit 3-9. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 12.25 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 8.17 percent. As such, the above equation utilizing a factor of 12.25 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 8.17 percent (i.e., 1/0.0817 = 12.25) and was assumed to sufficiently estimate ADT volumes for planning-level analyses. Existing weekday peak hour intersection volumes, in actual vehicles, are shown on Exhibit 3-9.

Passenger Car Equivalent (PCE) factors were applied to the existing weekday peak hour intersection volumes for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. The PCE factors are consistent with the recommended PCE factors in City's guidelines. Existing weekday peak hour intersection volumes, in PCE, are shown on Exhibit 3-10.

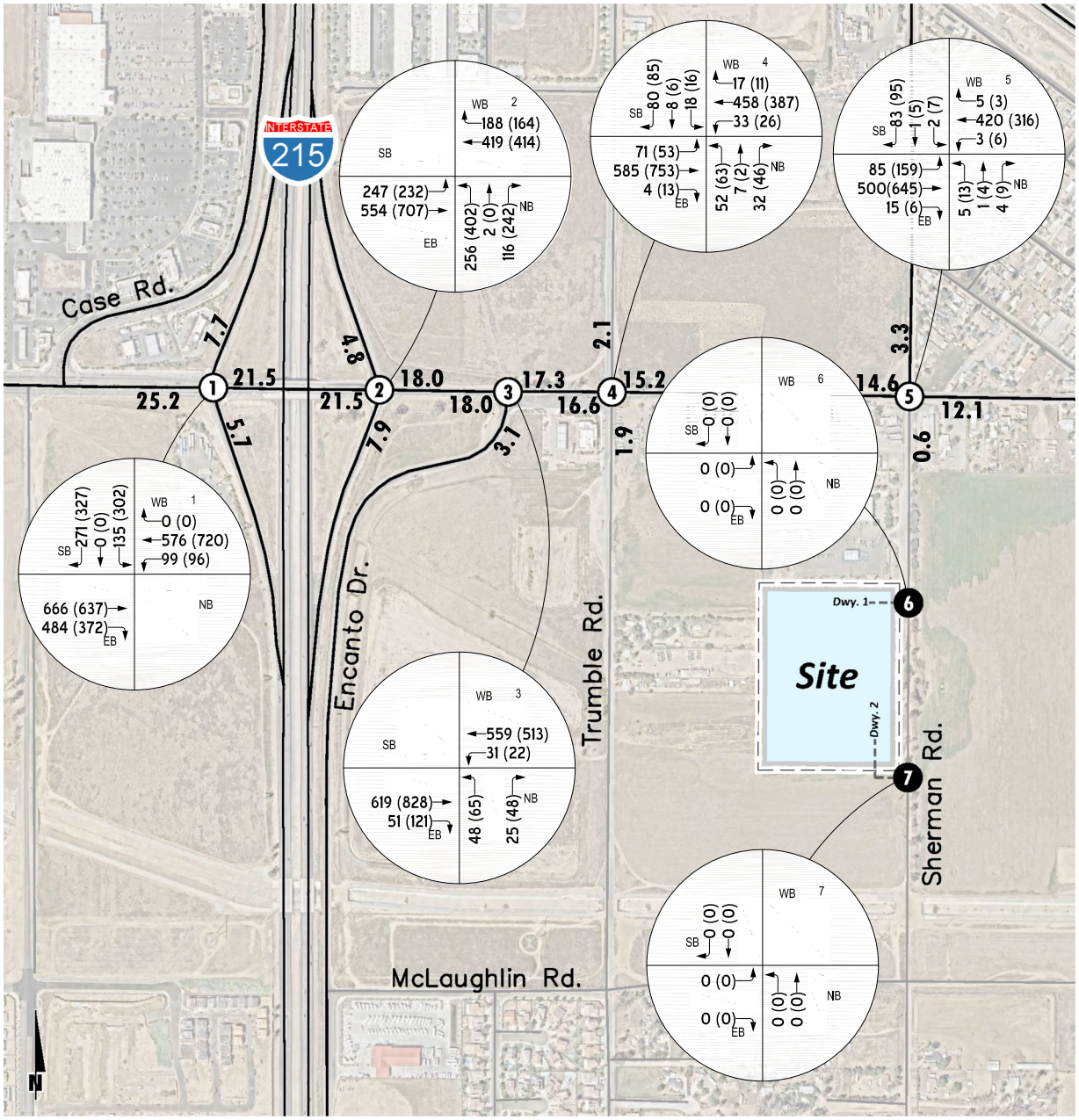
3.8 INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1, which indicates that the study area intersection is currently operating at an unacceptable LOS during the peak hours under Existing (2024) traffic conditions with the exception of the following intersection:

- Sherman Road & Ethanac Road (#5) – LOS F PM peak hour only

The intersection operations analysis worksheets are included in Appendix 3.2 of this TA.

EXHIBIT 3-9 : EXISTING (2024) TRAFFIC VOLUMES (ACTUAL VEHICLES)



LEGEND

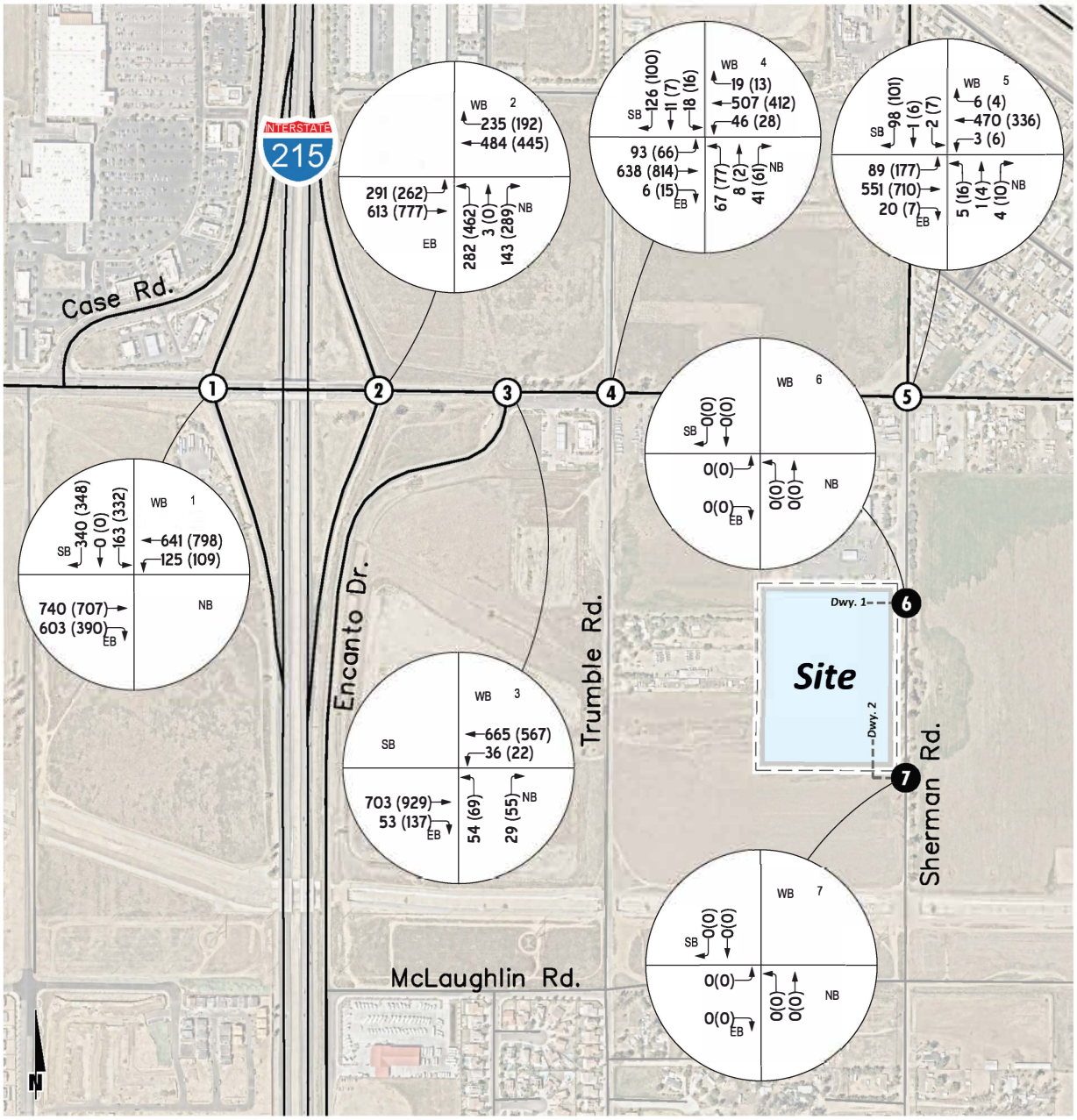
(0) = *Existing Intersection Analysis Location*

0 = *Future Intersection Analysis Location*

00 (00) = *Peak Hour Intersection Volume AM (PM)*

##.# = *Average Daily Trips (1000's)*

EXHIBIT 3-10 : EXISTING (2024) TRAFFIC VOLUMES (PCE)



LEGEND

(0) = *Existing Intersection Analysis Location*

0 = *Future Intersection Analysis Location*

00 (00) = *Peak Hour Intersection Volume AM (PM)*

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2024) CONDITIONS

#	Intersection	Traffic Control[2]	Delay[1] (secs.) AM	Delay[1] (secs.) PM	Level of Service AM	Level of Service PM
1	I-215 SB Ramps & Ethanac Rd.	TS	16.2	17.2	B	B
2	I-215 NB Ramps & Ethanac Rd.	TS	31.0	37.3	C	D
3	Encanto Dr. & Ethanac Rd.	CSS	23.2	31.5	C	D
4	Trumble Rd. & Ethanac Rd.	TS	20.1	21.9	C	C
5	Sherman Rd. & Ethanac Rd.	CSS	33.0	**73.3**	D	**F**
6	Sherman Rd. & Driveway 1		Future Intersection			
7	Sherman Rd. & Driveway 2		Future Intersection			

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (7th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

2 TS = Traffic Signal; CSS = Cross-street Stop

3.9 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. The following unsignalized study area intersections currently meet a traffic signal warrant for Existing (2024) traffic conditions:

- Encanto Drive & Ethanac Road (#3)
- Sherman Road & Ethanac Road (#5)

Existing conditions traffic signal warrant analysis worksheets are provided in Appendix 3.3.

3.10 ROADWAY SEGMENT CAPACITY ANALYSIS

The roadway capacities utilized for the study area roadway segment analysis are obtained from the City Guidelines. These roadway segment capacities are approximate figures only and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand.

Table 3-2 provides a summary of the Existing (2024) Conditions roadway segment capacity analysis. As shown in Table 3-2, all study area roadway segments are currently operating at an acceptable LOS based on the daily roadway capacity thresholds and minimum LOS criteria.

TABLE 3-2: ROADWAY SEGMENT CAPACITY ANALYSIS FOR EXISTING (2024) CONDITIONS

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing (2024) 2024	V/C[2]	LOS[3]
1	Ethanac Road	I-215 Freeway to Encanto Dr.	2D	32,000	17,983	0.562	A
2		Encanto Dr. to Trumble Rd.	2D	32,000	17,278	0.540	A
3		Trumble Rd. to Sherman Rd.	2U	32,000	15,172	0.474	A
4	Sherman Road	South of Ethanac Rd.	2U	17,050	571	0.033	A

[1] The volumes shown are based on LOS "E" roadway segment capacity thresholds as defined by the Riverside County Transportation Department and City Guidelines.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

3.11 OFF-RAMP QUEUING ANALYSIS

Queuing analysis findings are presented in Table 3-3. As shown in Table 3-3, there are currently no study area off-ramps experiencing queuing issues during the peak hours under Existing (2024) traffic conditions. Worksheets for Existing (2024) traffic conditions queuing analysis are provided in Appendix 3.4.

TABLE 3-3: PEAK HOUR QUEUING SUMMARY FOR EXISTING (2024) CONDITIONS

#	Intersection	Movement	Stacking Distance (Feet)	95th Percentile Queue (Feet) AM Peak Hour	PM Peak Hour	Acceptable?[1] AM	PM
1	I-215 SB Ramps & Ethanac Rd.	SBT	1,375	167	391 [2]	Yes	Yes
		SBR	240	132	172	Yes	Yes
2	I-215 NB Ramps & Ethanac Rd.	NBL/T	1,325	352 [2]	594 [2]	Yes	Yes
		NBR	270	53	107	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

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4 PROJECTED FUTURE TRAFFIC

The Project is proposed to consist of the development of a 264,710-square-foot warehouse building which includes 10,000 square feet of office support space on an 11.47-acre site. The Project is anticipated to have an Opening Year of 2026. Access is proposed along Sherman Avenue via two points of access (the southerly driveway being a shared driveway with the property immediately to the south). All driveways are assumed to allow for full access (no turn restrictions).

The site is currently occupied by North County Sand & Gravel. They are currently operating from Monday through Friday from 8:00 AM to 4:00 PM. Credit for the trips associated with the existing use has not been applied to the Project trip generation in order to conduct a more conservative analysis.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to, and produced by, a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to, and produced by, the specific land uses being proposed for a given development. Trip generation rates for the proposed Project are shown in Table 4-1. The trip generation rates used for this analysis are based upon information collected by the ITE as provided in their Trip Generation Manual (11th Edition, 2021). (2) The following ITE land use code and vehicle mix has been utilized for the Project:

- ITE Land Use Code 150 (Warehousing) has been used to derive site-specific trip generation estimates for up to 264,710 square feet. A warehouse is primarily devoted to the storage of materials but may also include office and maintenance areas. The vehicle mix has been obtained from the ITE's Trip Generation Manual and the truck percentages were further broken down by axle type per the following South Coast Air Quality Management District (SCAQMD) recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.

The Business Park land use category (ITE Land Use Code 770) was considered however, this category states the rate is applicable to projects that include a group of flex-type, one-to-two story buildings served by a common roadway system, includes a variety of uses from retail, office, and wholesale. Since the buildings are typically served by a ground-level garage door (roll-up), ITE does not provide a truck rate/percentage for this land use category. Based on a review of the proposed Project site plan, the Warehousing land use category was selected based on the proposed square footage and building layout, which includes dock-high doors, and to ensure the Project trip generation accounts for heavy trucks that are not typically associated with a Business Park use.

The Project trip generation rates are shown in Table 4-1. As noted in Table 4-1, refinements to the raw trip generation estimates have been made to provide a more detailed breakdown of trips between passenger cars and trucks. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks.

TABLE 4-1: TRIP GENERATION RATES

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicle Trip Generation Rates									
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars (AM=88.2%, PM=83.3%, Daily=64.9%)			0.120	0.030	0.150	0.034	0.116	0.150	1.110
2-Axle Trucks (AM=1.97%, PM=2.79%, Daily=5.86%)			0.002	0.001	0.003	0.003	0.002	0.005	0.100
3-Axle Trucks (AM=2.44%, PM=3.46%, Daily=7.27%)			0.002	0.002	0.004	0.003	0.003	0.006	0.124
4+-Axle Trucks (AM=7.39%, PM=10.45%, Daily=21.97%)			0.007	0.006	0.013	0.010	0.009	0.019	0.376
Passenger Car Equivalent (PCE) Trip Generation Rates									
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars			0.120	0.030	0.150	0.034	0.116	0.150	1.110
2-Axle Trucks (PCE = 1.5)			0.003	0.002	0.005	0.005	0.003	0.008	0.150
3-Axle Trucks (PCE = 2.0)			0.004	0.004	0.008	0.006	0.006	0.012	0.248
4+-Axle Trucks (PCE = 3.0)			0.021	0.017	0.038	0.030	0.026	0.056	1.127

[1] Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] TSF = thousand square feet

[3] Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type.
Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks.

A summary of the proposed Project trip generation is shown in Table 4-2. As shown in Table 4-2, the Project is anticipated to generate a total of 456 two-way trips per day on a typical weekday with approximately 46 AM peak hour trips and 49 PM peak hour trips, in actual vehicles.

TABLE 4-2 PROJECT TRIP GENERATION SUMMARY

Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicles:									
Warehousing	264.710	TSF							
Passenger Cars:			32	8	40	9	31	40	294
2-axle Trucks:			1	0	1	1	1	2	28
3-axle Trucks:			1	1	2	1	1	2	34
4+-axle Trucks:			2	1	3	3	2	5	100
Total Truck Trips (Actual Vehicles):			4	2	6	5	4	9	162
Total Trips (Actual Vehicles)[2]			**36**	**10**	**46**	**14**	**35**	**49**	**456**
Passenger Car Equivalent (PCE):									
Warehousing	264.710	TSF							
Passenger Cars:			32	8	40	9	31	40	294
2-axle Trucks:			1	1	2	1	1	2	40
3-axle Trucks:			1	1	2	2	2	4	66
4+-axle Trucks:			6	4	10	8	7	15	298
Total Truck Trips (PCE):			8	6	14	11	10	21	404
Total Trips (PCE)[2]			**40**	**14**	**54**	**20**	**41**	**61**	**698**

[1] TSF = thousand square feet

[2] Total Trips = Passenger Cars + Truck Trips.

For the purposes of the operations analysis, the PCE-based trip generation shown in Table 4-2 has been utilized. The Project is anticipated to generate a total of 698 two-way PCE trips per day on a typical weekday with approximately 54 PCE AM peak hour trips and 61 PCE PM peak hour trips.

4.2 PROJECT TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding land uses, and the proximity to the regional freeway system.

The Project trip distribution patterns for both passenger cars and trucks are consistent with those evaluated as part of the Menifee Commerce Center Project Traffic Impact Analysis (prepared by Albert A. Webb Associates and dated August 2021). The passenger car and truck trip distributions are illustrated on Exhibits 4-1 and 4-2, respectively.

4.3 MODAL SPLIT

The potential for Project trips to be reduced by the use of public transit, walking, or bicycling have not been included as part of the Project's estimated trip generation. Essentially, the Project's traffic projections are "conservative" in that these alternative travel modes would reduce the forecasted traffic volumes.

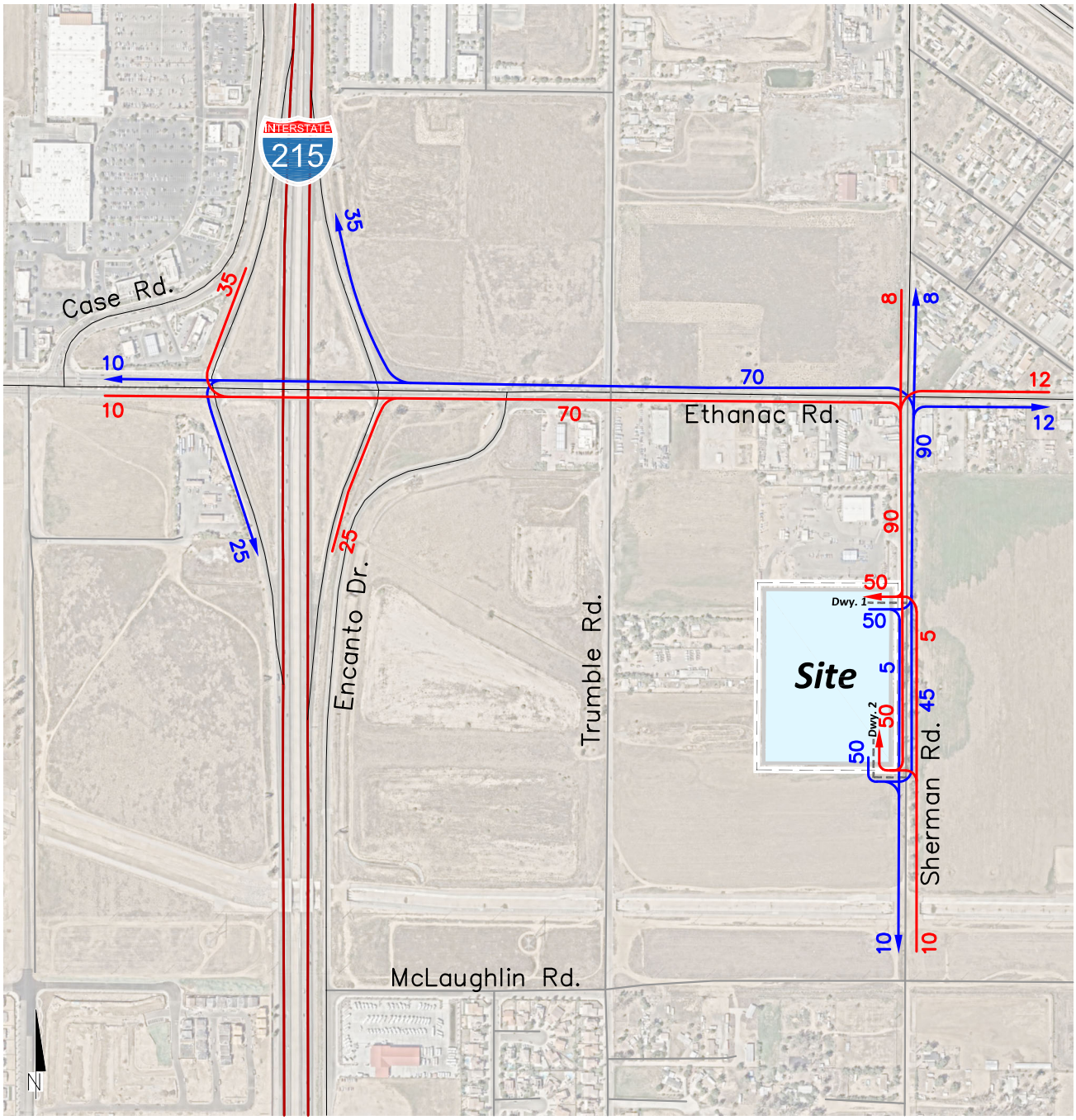
4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project weekday ADT and weekday peak hour intersection turning movement volumes are shown on Exhibit 4-3 for actual vehicles and Exhibit 4-4 for PCE.

4.5 BACKGROUND TRAFFIC

Future year traffic forecasts have been based upon background (ambient) growth at 2.0% per year, compounded annually. The total ambient growth is 4.04% for 2026 traffic. The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies. The traffic generated by the proposed Project is manually added to the base volume to determine Opening Year forecasts.

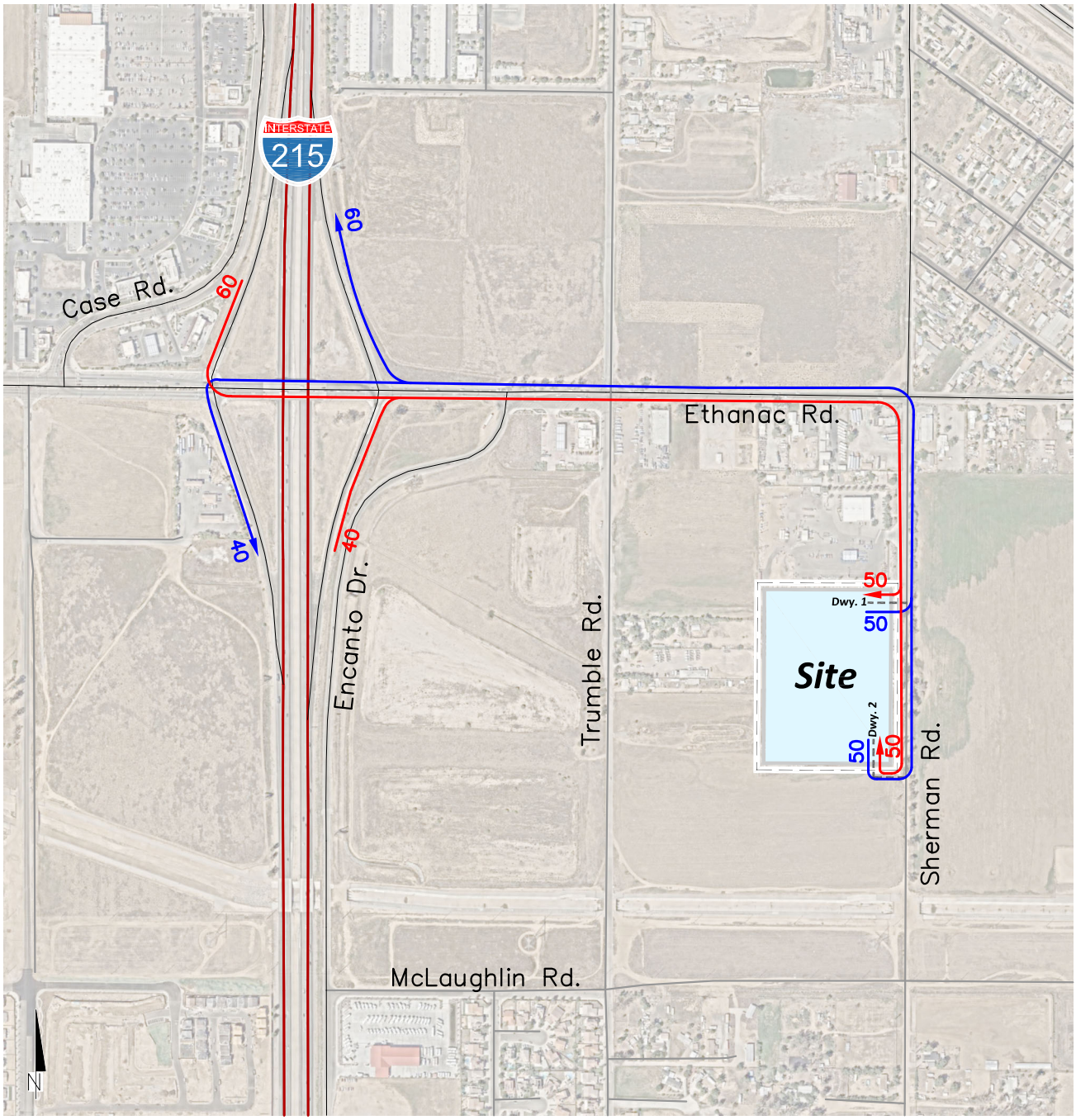
EXHIBIT 4-1 : PROJECT (PASSENGER CAR) TRIP DISTRIBUTION



LEGEND:

10 = *Car Percent To/From Project*
= *Inbound*
= *Outbound*

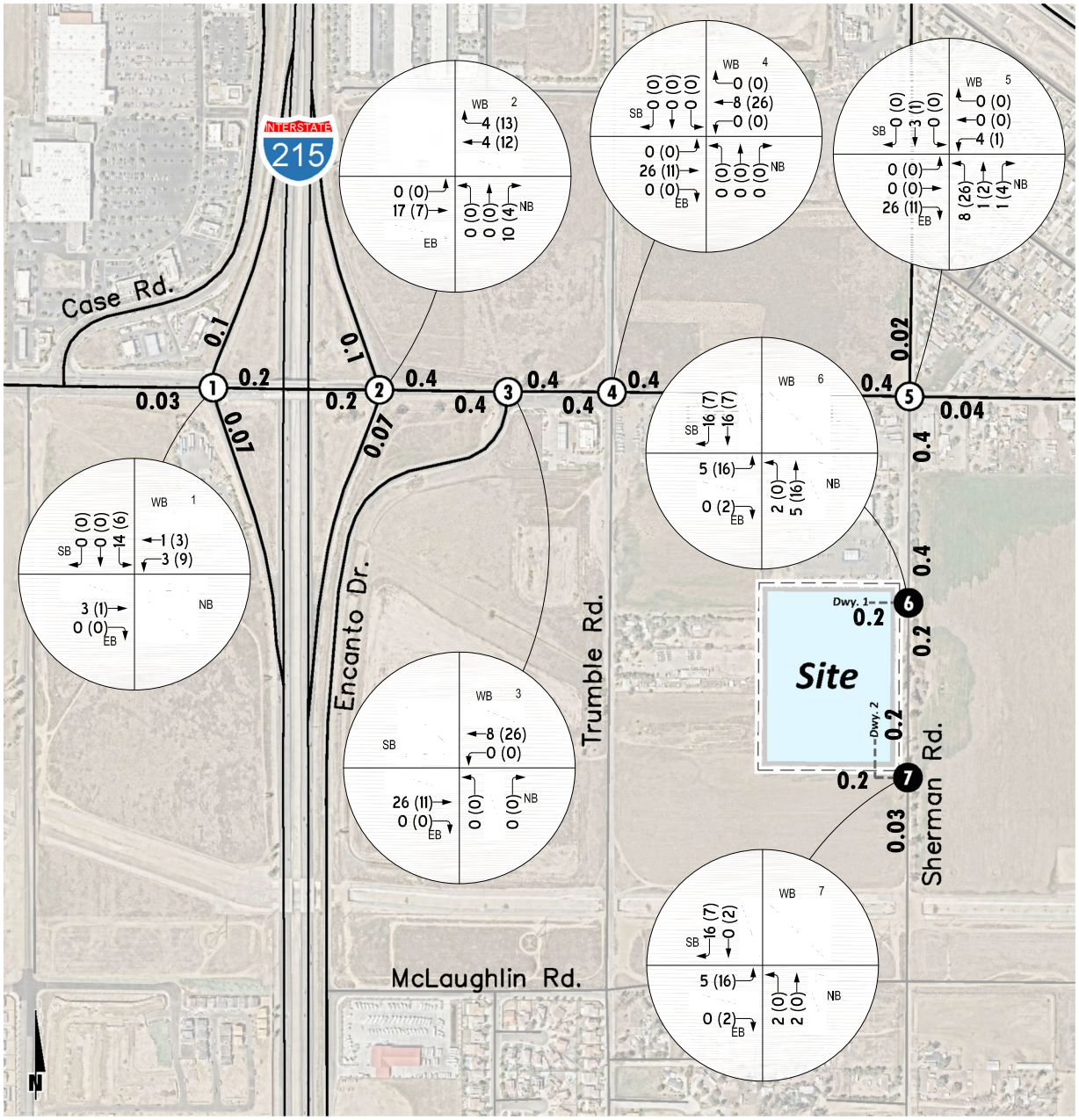
EXHIBIT 4-2 : PROJECT (TRUCK) TRIP DISTRIBUTION



LEGEND:

10 = *Truck Percent To/From Project*
= *Inbound*
= *Outbound*

EXHIBIT 4-3 : PROJECT ONLY TRAFFIC VOLUMES (ACTUAL VEHICLES)



LEGEND

(0) = *Existing Intersection Analysis Location*

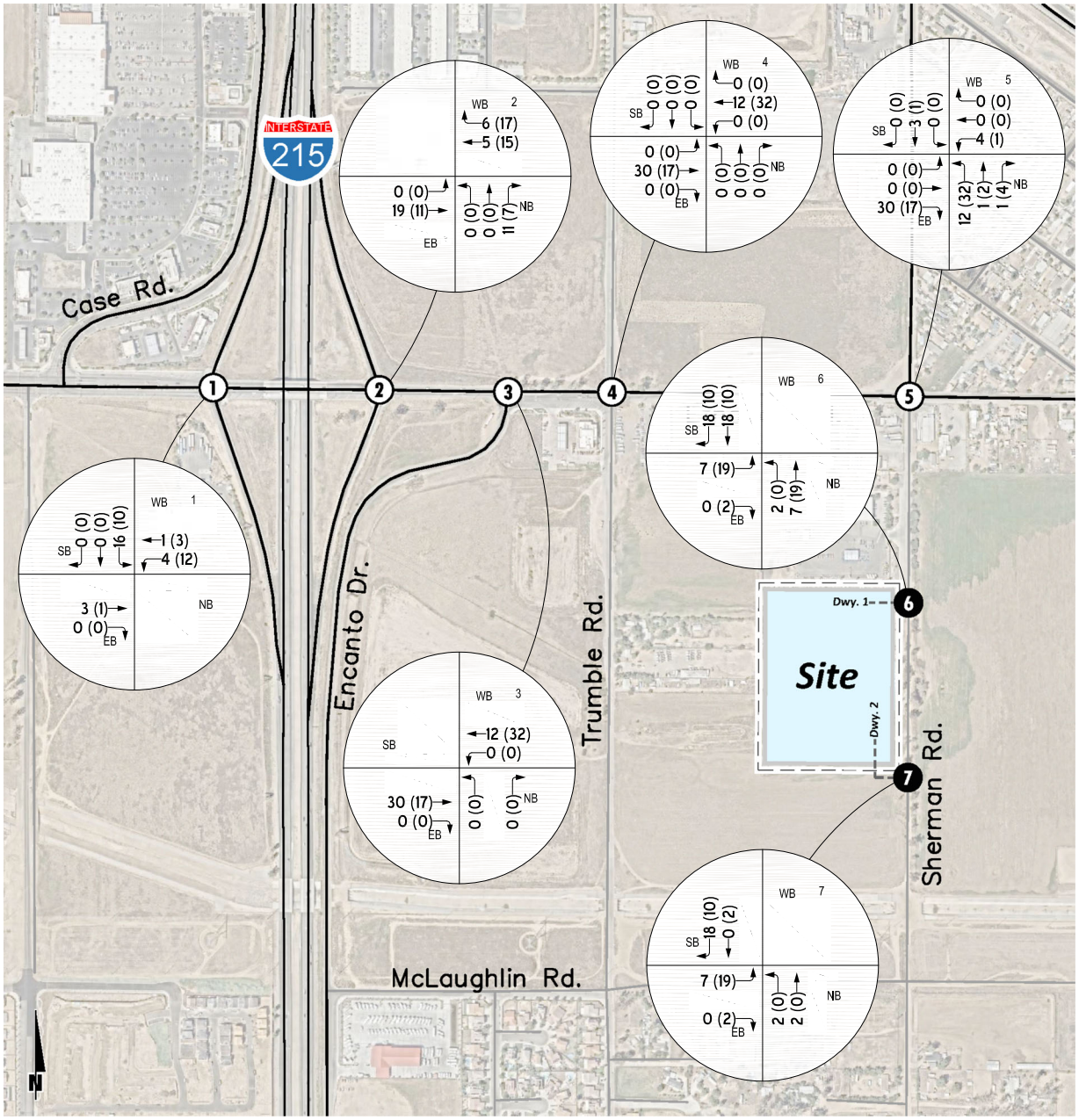
0 = *Future Intersection Analysis Location*

00 (00) = *Peak Hour Intersection Volume AM (PM)*

##.# = *Average Daily Trips (1000's)*

15796 vol.dwg

EXHIBIT 4-4 : PROJECT ONLY TRAFFIC VOLUMES (PCE)



LEGEND

(0) = *Existing Intersection Analysis Location*

(0) = *Future Intersection Analysis Location*

00 (00) = *Peak Hour Intersection Volume AM (PM)*

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Menifee and the nearby agencies of the City of Perris and County of Riverside. The cumulative projects listed are those that would generate traffic and would contribute traffic to study area intersections. Exhibit 4-5 illustrates the cumulative development location map. A summary of cumulative development projects and their proposed land uses are shown in Table 4-3. If applicable, the traffic generated by individual cumulative projects was manually added to the Opening Year (2026) forecasts to ensure that traffic generated by the listed cumulative development projects in Table 4-3 is reflected as part of the background traffic. In an effort to conduct a conservative analysis, the cumulative projects are added in conjunction with the ambient growth identified in Section 4.5 *Background Traffic*. Cumulative ADT and peak hour intersection turning movement volumes, in actual vehicles, are shown on Exhibit 4-6 for actual vehicles and Exhibit 4-7 for PCE.

EXHIBIT 4-5 : CUMULATIVE DEVELOPMENT LOCATION MAP

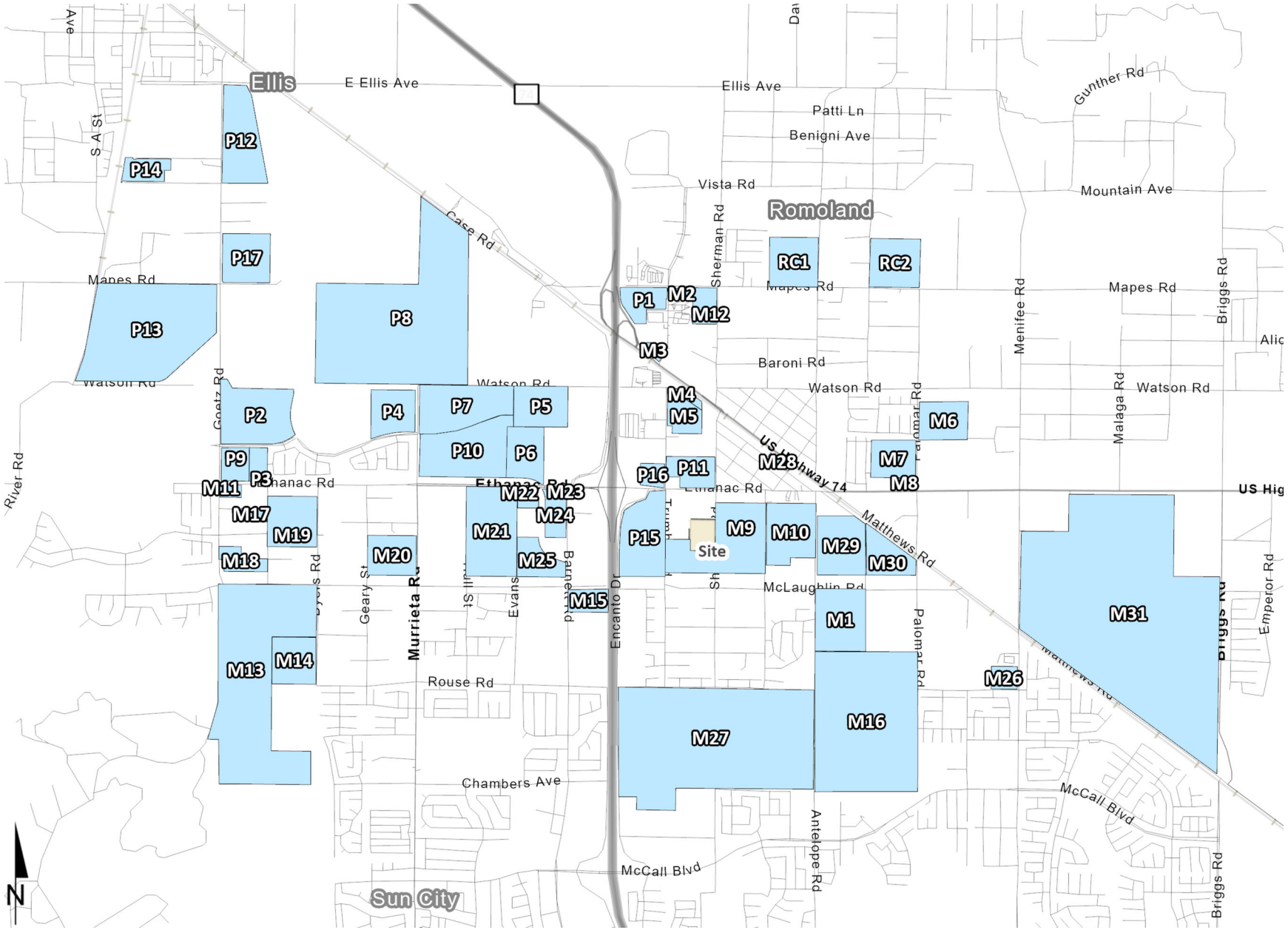
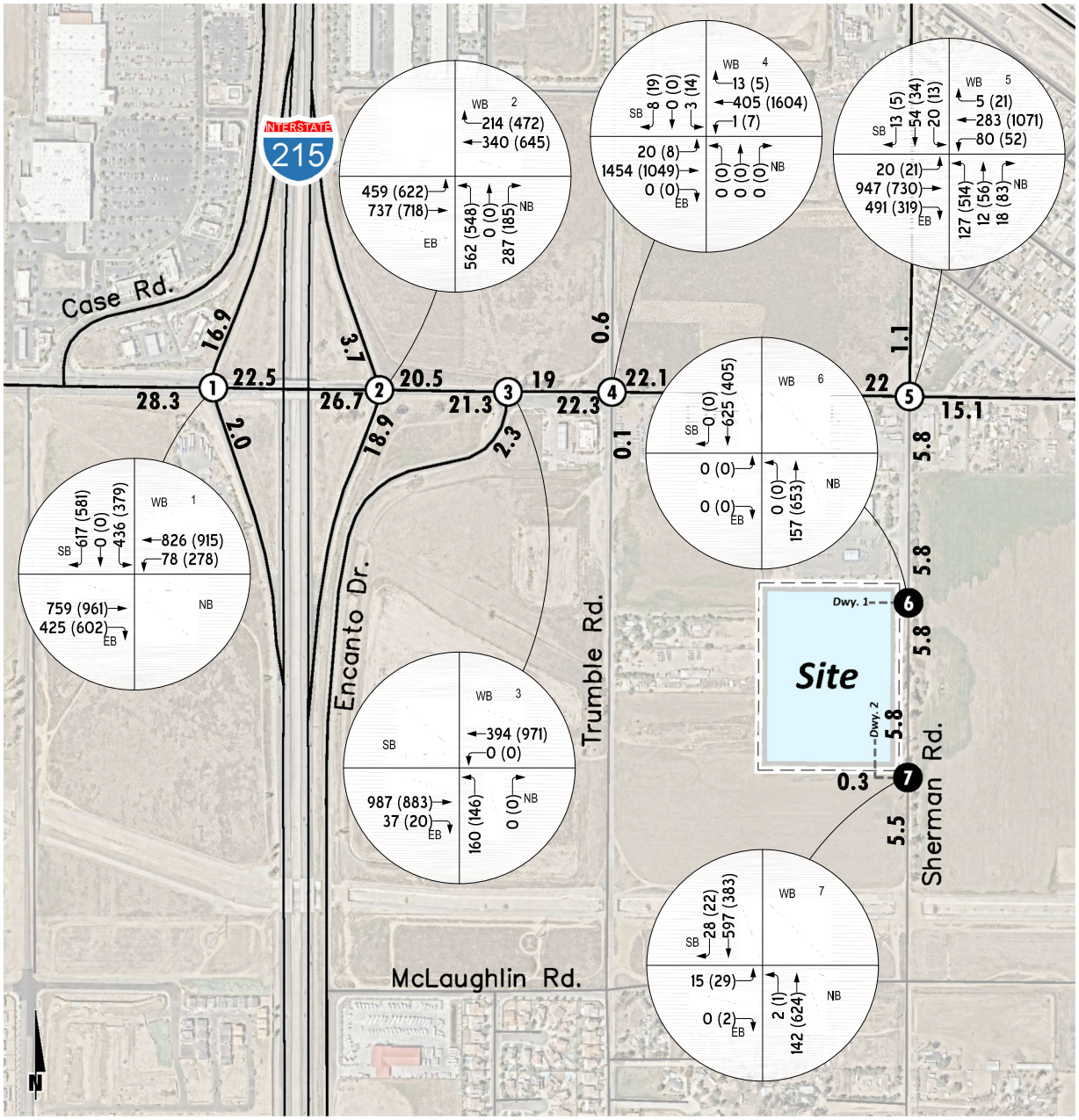


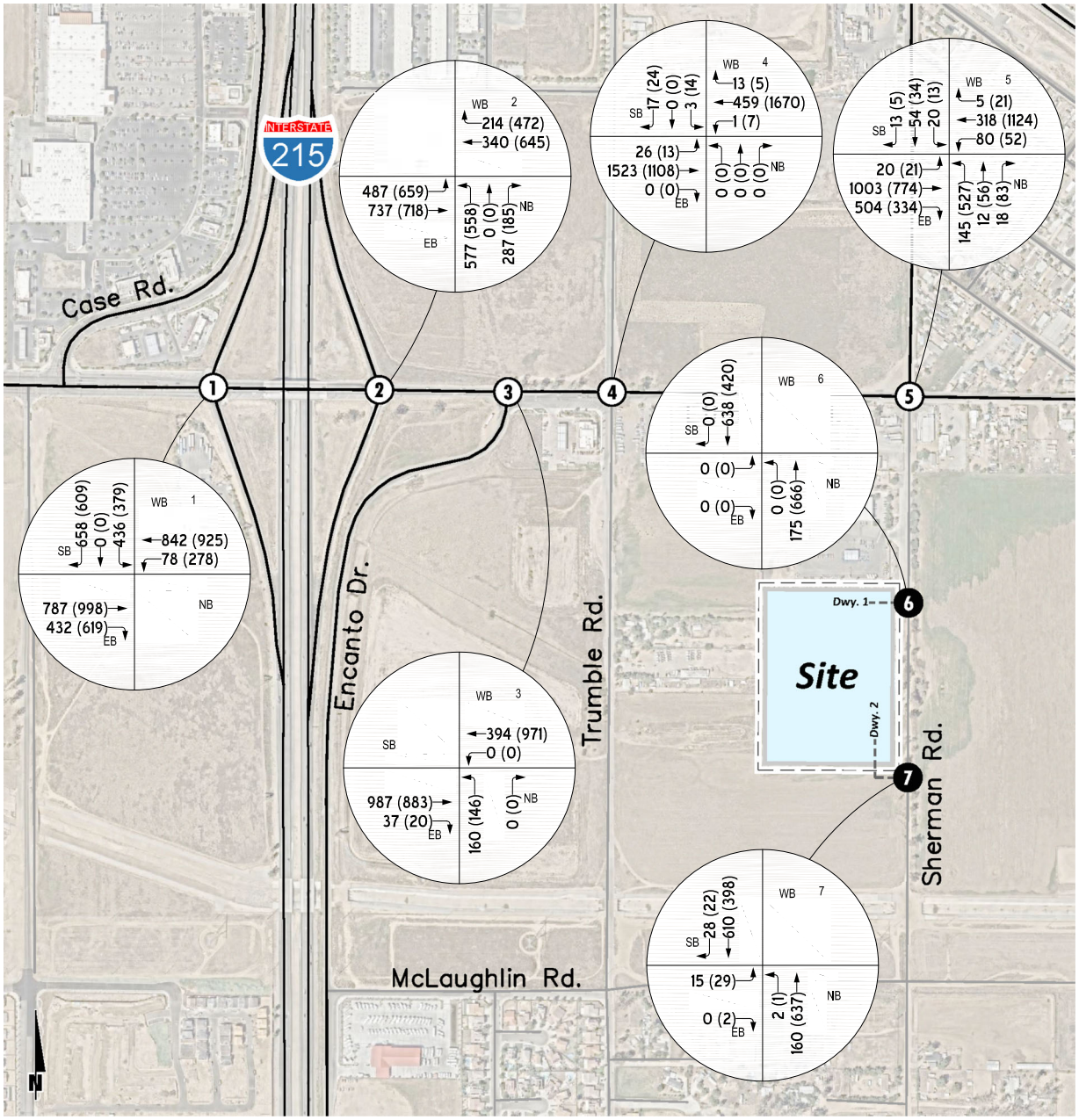
EXHIBIT 4-6 : CUMULATIVE ONLY TRAFFIC VOLUMES (ACTUAL VEHICLES)



LEGEND

(0)	*= Existing Intersection Analysis Location*
0	*= Future Intersection Analysis Location*
00 (00)	*= Peak Hour Intersection Volume AM (PM)*
##.#	*= Average Daily Trips (1000's)*

EXHIBIT 4-7 : CUMULATIVE ONLY TRAFFIC VOLUMES (PCE)



LEGEND

(0) = *Existing Intersection Analysis Location*

(0) = *Future Intersection Analysis Location*

00 (00) = *Peak Hour Intersection Volume AM (PM)*

TABLE 4-3: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

No.	Project Name / Case Number	Jurisdiction	Land Use	Quantity	Units[1]
P1	Mapes and Trumble Industrial	Perris	High-Cube Fulfillment Center Warehouse	396.000	TSF
	Green Valley Specific Plan (GVSP)	Perris			
P2	GVSP - Track 37262		Single Family Housing	191	DU
P3	GVSP - Track 37816		Multifamily Housing	97	DU
P4	GVSP - Track 37722 (25% Complete)		Single Family Housing	116	DU
P5	GVSP - Track 37817		Multifamily Housing	227	DU
P6	GVSP - Track 37818		Multifamily Housing	374	DU
P7	GVSP - Track 37223		Single Family Housing	235	DU
P8	GVSP - Phase 2 (North)		Multifamily Housing	1,183	DU
			Single Family Housing	462	DU
			Commercial	5.9	AC
			School	15.0	AC
P9	GVSP - Phase 2 (South)		Multifamily Housing	111	DU
			Commercial	5.4	AC
P10	GVSP (PA 46, 47, & 48)		Single Family Housing	483	DU
P11	Hillwood Ethanac	Perris	High-Cube Transload Warehouse	362.348	TSF
			High-Cube Cold Storage Warehouse	50.000	TSF
P12	Perris Airport Center Industrial	Perris	High-Cube Fulfillment Center Warehouse	795.109	TSF
			General Light Industrial	71.961	TSF
			Truck/Trailer Lot	323	Spaces
P13	Perris Logistics Center South	Perris	High-Cube Warehouse	3,448.734	TSF
P14	Case Road Mixed-Use	Perris	Self-Storage Facility	211.900	TSF
			Recreational Vehicle (RV) Storage	215	Spaces
			High-Cube Fulfillment Center (Sort)	498.000	TSF
			Hotel	128	RM
			High Turnover (Sit-Down) Restaurant	27.000	TSF
			Fast-Food Restaurant with Drive-Thru	5.000	TSF
P15	Motte Towne Center (DPR06-0337)	Perris	Commercial	286.000	TSF
			Free-Standing Discount Store	221.000	TSF
P16	Perris Travel Center (P22-05002)	Perris	Gas Station and Truck Stop	23	VFP
P17	Airport Industrial	Perris	Industrial	650.000	TSF
RC1	TTM/TR37358	County	Residential lots	154	DU
RC2	TR31687	County	Single Family Residential	65	DU
M1	McLaughlin Warehouses (DEV2024-016)	Menifee	Warehouse	491.467	TSF
M2	United Carports Warehouse (DEV2024-009)	Menifee	Warehouse	58.643	TSF
M3	Trumble Retail (CUP2016-290)	Menifee	Hotel	108	RM
			Quality Restaurant	5.500	TSF
			Fast-Food w/ Drive-Thru	3.000	TSF
			Gas Station	12	VFP
M4	Paragon Framing (CUP2018-126)	Menifee	Office/Storage	10.454	TSF

No.	Project Name / Case Number	Jurisdiction	Land Use	Quantity	Units[1]
M5	Trumble/Watson Warehouse (DEV2024-019)	Menifee	Warehouse	327.631	TSF
M6	TR 38132 & 38133 (SPA DEV2021-005)	Menifee	Single Family Residential	322	DU
M7	MR-27 LLC Rancon (TTM 34118)	Menifee	Multifamily (Low-Rise)	85	DU
M8	Motte Country Plaza (PP2018-300)	Menifee	Gas Station	12	VFP
M9	Menifee Commerce Center (PP2019-005)	Menifee	Warehouse	1,640.130	TSF
M10	Motte Business Center	Menifee	Warehouse	1,138.638	TSF
M11	Goetz/Ethanac Commercial (PP PLN21-0319)	Menifee	Gas Station w/ C-Store	7.250	TSF
			Car Wash	2.790	TSF
			Retail	7.040	TSF
M12	Mapes and Sherman Warehouse	Menifee	High-Cube Fulfillment Center Warehouse	277.578	TSF
M13	Cimarron Ridge	Menifee	Residential	756	DU
M14	TTM 38128 (DEV2024-001)	Menifee	Single Family Residential	96	DU
M15	McLaughlin Village	Menifee	Condominiums	126	DU
M16	Underwood	Menifee	Residential	543	DU
M17	Wheat Warehouse	Menifee	Warehouse Distribution Center	87.676	TSF
M18	Corsica Business Park (DEV2024-010)	Menifee	Business Park	234.921	TSF
M19	CADO Warehouse	Menifee	Warehouse	700.037	TSF
M20	Ares Warehouse on Murrieta (DEV2024-017)	Menifee	Warehouse	517.720	TSF
M21	Northern Gateway Commerce Center II (PP PLN21-0281)	Menifee	High-Cube Warehouse	1,286.607	TSF
M22	Ethanac/Evans Warehouse (DEV2024-018)	Menifee	Warehouse	137.896	TSF
M23	Ethanac Square (MJMOD PLN21-0104)	Menifee	Gas Station	3.800	TSF
M24	Ethanac/Barnett Warehouse (PP PLN21-0290)	Menifee	Warehouse	251.133	TSF
M25	Menifee Logistics (PLN23-0040)	Menifee	Warehouse	411.829	TSF
M26	LDW TTM 38346	Menifee	Condominiums	162	DU
M27	Legado SP	Menifee	Single Family Detached Residential	1,061	DU
			Shopping Center	225.000	TSF
			Sports Park	11.23	AC
			Recreational Community Center	10.000	TSF
M28	Self-Storage Facility	Menifee	Self-Storage Facility		
M29	Nova Battery Project (DEV2024-015)	Menifee	Battery Energy Storage System	44.220	AC
M30	Double Butte (DEV2024-026)	Menifee	Battery Energy Storage System	27.000	AC
M31	Menifee Valley Specific Plan	Menifee	Single Family Housing	1,328	DU
			Multifamily (Low-Rise)	390	DU
			Elementary School	750	STU
			Industrial Uses	5,510.000	TSF
			Commercial	560.000	TSF
			Public Facilities	120.000	TSF
			Sports Park w/ Aquatic Sports	54.000	TSF

[1] TSF = Thousand Square Feet; DU = Dwelling Units; VSP = Vehicle Fueling Positions; STU = Students; AC = Acres

4.7 HORIZON YEAR TRAFFIC FORECASTS

Traffic projections for Horizon Year conditions were derived from the RIVCOM regional model using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between Existing and Horizon Year traffic conditions. The base model year for the RIVCOM regional model is Year 2018 and the future year model is Year 2045.

In most instances, the traffic model zone structure is not designed to provide accurate turning movements along arterial roadways unless refinement and reasonableness checking is performed. Therefore, the Horizon Year peak hour forecasts were refined using the model derived long-range forecasts, base (validation) year model forecasts, along with existing peak hour traffic count data collected at each analysis location.

The refined future peak hour approach and departure volumes obtained from these calculations are then entered into a spreadsheet program consistent with the National Cooperative Highway Research Program (NCHRP Report 765), along with initial estimates of turning movement proportions. A linear programming algorithm is used to calculate individual turning movements which match the known directional roadway segment forecast volumes computed in the previous step. This program computes a likely set of intersection turning movements from intersection approach counts and the initial turning proportions from each approach leg.

Typically, the model growth is prorated and is subsequently added to the existing (base validation) traffic volumes to represent Horizon Year traffic conditions. However, review of the resulting model growth indicates negative growth for some of the study area intersections. In an effort to conduct a conservative analysis, reductions to traffic forecasts from either Existing or EAC traffic conditions were not assumed as part of this analysis. As such, in conjunction with the addition of cumulative projects that are not consistent with the General Plan, additional growth has also been applied on a movement-by-movement basis, where applicable, to estimate reasonable Horizon Year forecasts. Horizon Year turning volumes were compared to EAC volumes in order to ensure a minimum growth as a part of the refinement process. The minimum growth includes any additional growth between EAC and Horizon Year traffic conditions that is not accounted for by the traffic generated by cumulative development projects and ambient growth rates assumed between Existing (2024) and Horizon Year traffic conditions. Future estimated peak hour traffic data was used for new intersections and intersections with an anticipated change in travel patterns to further refine the Horizon Year peak hour forecasts. The only instance when the EAC forecasts would not be used to manually adjust the Horizon Year forecasts is if there are new proposed roadway connections/facilities that would explain the change in travel patterns within the study area.

The future Horizon Year Without Project peak hour turning movements were then reviewed by Urban Crossroads for reasonableness, and in some cases, were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes. Flow conservation checks ensure that traffic flow between two closely spaced intersections, such as two freeway ramp locations, is verified in order to make certain that vehicles leaving one intersection are entering the adjacent intersection and that there is no unexplained loss of vehicles. The result of this traffic forecasting procedure is a series of traffic volumes which are suitable for traffic operations analysis. Post processing worksheets are provided in Appendix 4.1.

5 E+P TRAFFIC CONDITIONS

This section discusses the methods used to develop E+P traffic forecasts, and the resulting intersection operations, traffic signal warrant, roadway segment, and freeway off-ramp queuing analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for E+P conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).

5.2 E+P TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus the addition of Project traffic. The weekday ADT volumes and peak hour volumes, in actual vehicles, which can be expected for E+P traffic conditions are shown on Exhibit 5-1 for actual vehicles and Exhibit 5-2 for PCE.

5.3 INTERSECTION OPERATIONS ANALYSIS

E+P peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 5-1 for E+P traffic conditions, which indicates the study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours, with the exception of the following intersection (consistent with Existing traffic conditions):

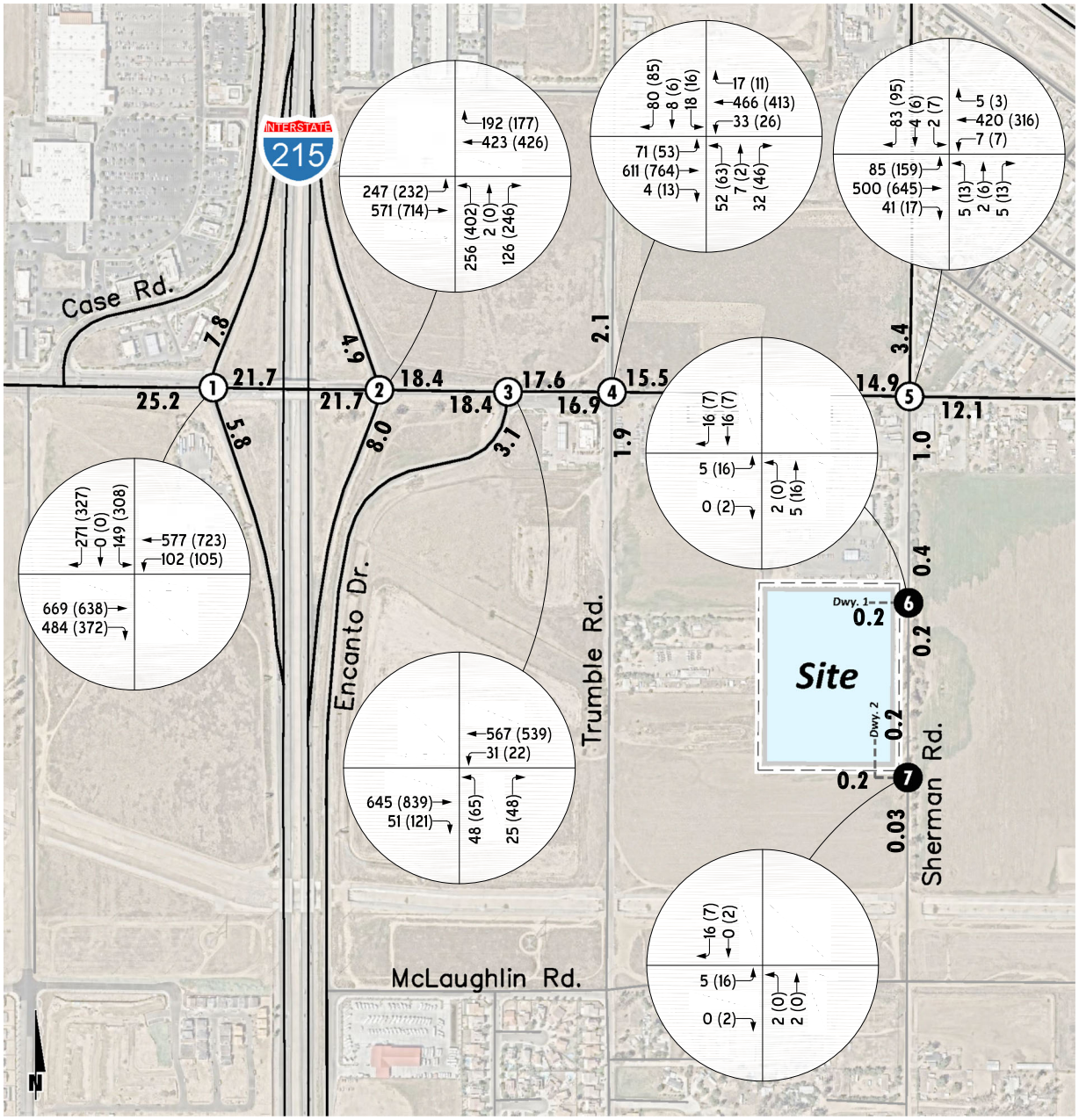
- Sherman Road & Ethanac Road (#5) – LOS F AM and PM peak hours

The intersection operations analysis worksheets for E+P traffic conditions are included in Appendix 5.1 of this TA.

5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been performed for E+P traffic conditions based on peak hour intersection turning movements volumes or planning level (ADT) volumes. There are no additional unsignalized study area intersections anticipated to meet a traffic signal warrant under E+P traffic conditions, in addition to the intersections identified under Existing (2024) traffic conditions. The E+P traffic conditions traffic signal warrant analysis worksheets are provided in Appendix 5.2.

EXHIBIT 5-1 : E+P TRAFFIC VOLUMES (ACTUAL VEHICLES)



LEGEND

(0) = *Existing Intersection Analysis Location*

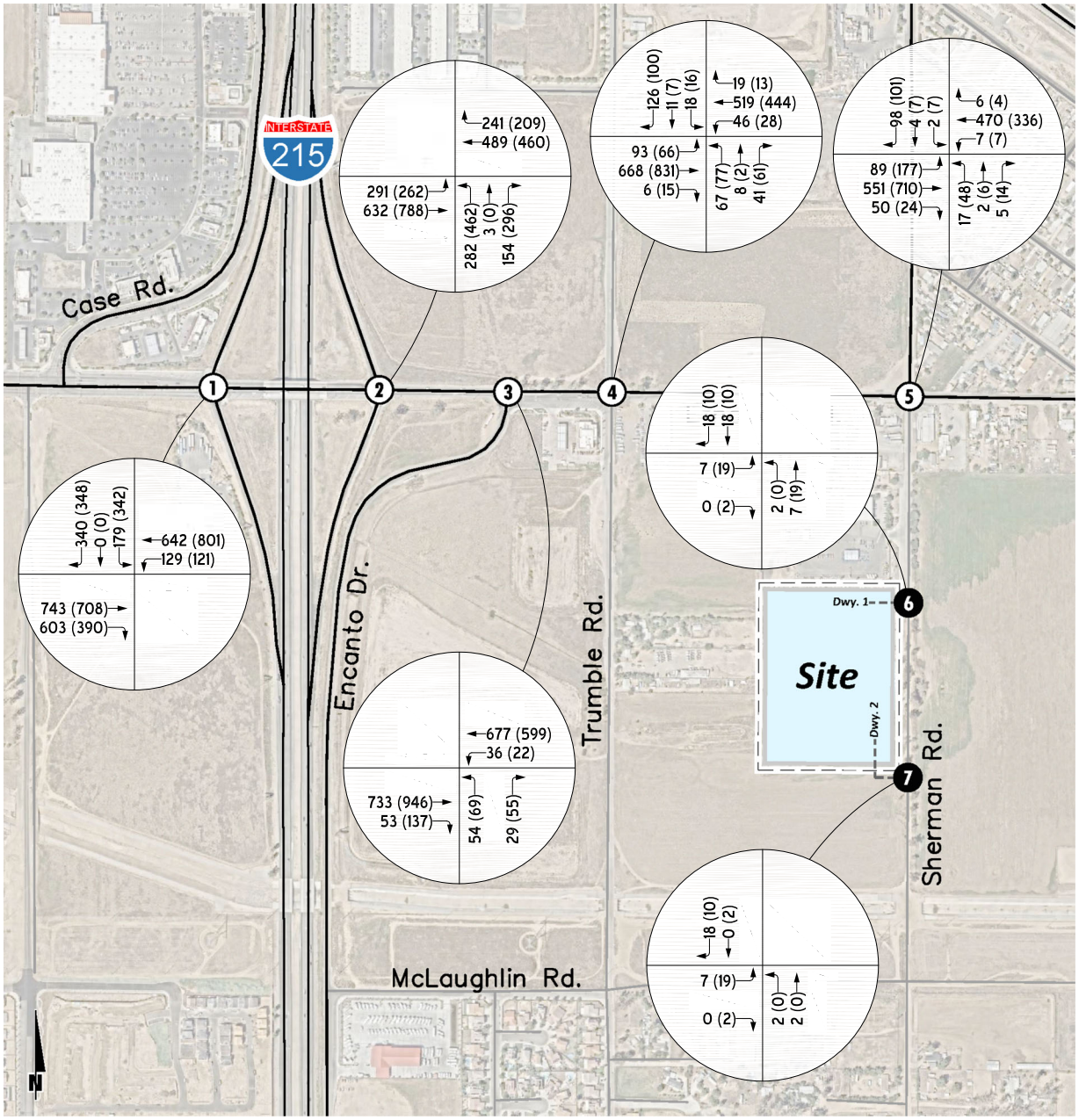
(0) = *Future Intersection Analysis Location*

00 (00) = *Peak Hour Intersection Volume AM (PM)*

##.# = *Average Daily Trips (1000's)*

15796 vol.dwg

EXHIBIT 5-2 : E+P TRAFFIC VOLUMES (PCE)



LEGEND

(0) = *Existing Intersection Analysis Location*

(0) = *Future Intersection Analysis Location*

00 (00) = *Peak Hour Intersection Volume AM (PM)*

TABLE 5-1: INTERSECTION ANALYSIS FOR E+P CONDITIONS

#	Intersection	Traffic Control[2]	Existing (2024) Delay[1] (secs.) AM	Existing (2024) Delay[1] (secs.) PM	Existing (2024) Level of Service AM	Existing (2024) Level of Service PM	E+P Delay[1] (secs.) AM	E+P Delay[1] (secs.) PM	E+P Level of Service AM	E+P Level of Service PM
1	I-215 SB Ramps & Ethanac Rd.	TS	16.2	17.2	B	B	16.7	18.2	B	B
2	I-215 NB Ramps & Ethanac Rd.	TS	31.0	37.3	C	D	31.7	40.9	C	D
3	Encanto Dr. & Ethanac Rd.	CSS	23.2	31.5	C	D	24.2	33.0	C	D
4	Trumble Rd. & Ethanac Rd.	TS	20.1	21.9	C	C	21.2	22.6	C	C
5	Sherman Rd. & Ethanac Rd.	CSS	33.0	**73.3**	D	**F**	**51.4**	**>100.0**	**F**	**F**
6	Sherman Rd. & Driveway 1	CSS	Future Intersection				9.0	9.0	A	A
7	Sherman Rd. & Driveway 2	CSS	Future Intersection				8.9	8.9	A	A

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (7th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

2 TS = Traffic Signal; CSS = Cross-street Stop; CSS = Improvement

5.5 ROADWAY SEGMENT CAPACITY ANALYSIS

The roadway capacities utilized for the study area roadway segment analysis are obtained from the City Guidelines. These roadway segment capacities are approximate figures only and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand.

Table 5-2 provides a summary of the E+P conditions roadway segment capacity analysis. As shown in Table 5-2, there are no study area roadway segments anticipated to operate at an unacceptable LOS based on the daily roadway capacity thresholds and minimum LOS criteria under E+P traffic conditions.

TABLE 5-2: ROADWAY SEGMENT CAPACITY ANALYSIS FOR E+P CONDITIONS

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing (2024) 2024	Existing (2024) V/C[2]	Existing (2024) LOS[3]	E+P E+P	E+P V/C[2]	E+P LOS[3]
1	Ethanac Road	I-215 Freeway to Encanto Dr.	2D	32,000	17,983	0.562	A	18,351	0.573	A
2		Encanto Dr. to Trumble Rd.	2D	32,000	17,278	0.540	A	17,646	0.551	A
3		Trumble Rd. to Sherman Rd.	2U	32,000	15,172	0.474	A	15,540	0.486	A
4	Sherman Road	South of Ethanac Rd.	2U	17,050	571	0.017	A	999	0.029	A

[1] The volumes shown are based on LOS "E" roadway segment capacity thresholds as defined by the Riverside County Transportation Department and City Guidelines.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

5.6 OFF-RAMP QUEUING ANALYSIS

Queuing analysis findings for E+P traffic conditions are presented in Table 5-3. As shown in Table 5-3, the study area off-ramps are not anticipated to experience queuing issues during the peak hours under E+P traffic conditions, consistent with Existing (2024) traffic conditions. Worksheets for E+P traffic conditions queuing analysis are provided in Appendix 5.3.

TABLE 5-3: PEAK HOUR QUEUING SUMMARY FOR E+P CONDITIONS

				Existing (2024)				E+P			
			Available Stacking Distance	95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
#	Intersection	Movement	(Feet)	AM Peak	PM Peak	AM	PM	AM Peak	PM Peak	AM	PM
1	I-215 SB Ramps & Ethanac Rd.	SBT	1375	167	391	Yes	Yes	182	406[2]	Yes	Yes
		SBR	240	132	172	Yes	Yes	132	173	Yes	Yes
2	I-215 NB Ramps & Ethanac Rd.	NBL/T	1325	352[2]	594[2]	Yes	Yes	352[2]	594[2]	Yes	Yes
		NBR	270	53	107	Yes	Yes	55	118	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

5.7 PROJECT DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

This section provides a summary of Project deficiencies and recommended improvements. Improvements needed to achieve acceptable LOS have been identified at intersections, roadway segments, or study area off-ramps that are anticipated to operate at a deficient LOS under E+P traffic conditions.

5.7.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

As previously shown in Table 5-1, Sherman Road & Ethanac Road (#5) is anticipated to operate at an unacceptable LOS during the peak hours under E+P traffic conditions. Improvements necessary to improve the intersection back to an acceptable LOS and the effectiveness of the proposed improvement is presented in Table 5-4.

TABLE 5-4: INTERSECTION ANALYSIS FOR E+P CONDITIONS WITH IMPROVEMENTS

			Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
		Traffic	Northbound			Southbound			Eastbound			Westbound						
		Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
5	Sherman Rd. & Ethanac Rd.																	
	Without Improvements:	CSS	0	1	0	0	1	0	0	1	0	0	1	0	**51.4**	**>100.0**	**F**	**F**
	With Improvements:	CSS	0	1	0	0	1	0	**1**	1	0	**1**	1	0	23.4	34.2	C	D

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; **1** = Improvement

[2] Per the Highway Capacity Manual (7th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-Street Stop

E+P conditions, with improvements, HCM calculation worksheets are provided in Appendix 5.4.

5.7.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT ROADWAY SEGMENTS

As shown in Table 5-2, there are no roadway segments anticipated to operate at an unacceptable LOS based on the daily roadway capacity thresholds and minimum LOS criteria under E+P traffic conditions. As such, no improvements have been identified.

5.7.3 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUEING DEFICIENCIES

As shown previously in Table 5-3, there are no study area off-ramps anticipated to experience queuing issues under E+P traffic conditions. As such, no improvements have been identified.

6 EAC & EAPC (2026) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for EAC and EAPC (2026) traffic conditions and the resulting intersection operations, traffic signal warrant, roadway segment, and freeway off-ramp queuing analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAC and EAPC (2026) Projects conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAPC (2026) conditions (e.g., intersection and roadway improvements at the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for both EAC and EAPC (2026) conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages).

6.2 EAC AND EAPC (2026) TRAFFIC VOLUME FORECASTS

The EAC (2026) scenario includes Existing traffic volumes plus an ambient growth factor of 4.04% and the addition of traffic generated by cumulative development projects. The EAPC (2026) scenario includes Existing traffic volumes plus an ambient growth factor of 4.04%, the addition of traffic generated by cumulative development projects, and the addition of Project traffic. The weekday ADT and weekday peak hour intersection turning movement volumes, in actual vehicles, which can be expected for EAC and EAPC (2026) traffic conditions are shown on Exhibits 6-1 and 6-2, respectively. The weekday ADT and weekday peak hour intersection turning movement volumes, in PCE, which can be expected for EAC and EAPC (2026) traffic conditions are shown on Exhibits 6-3 and 6-4, respectively.

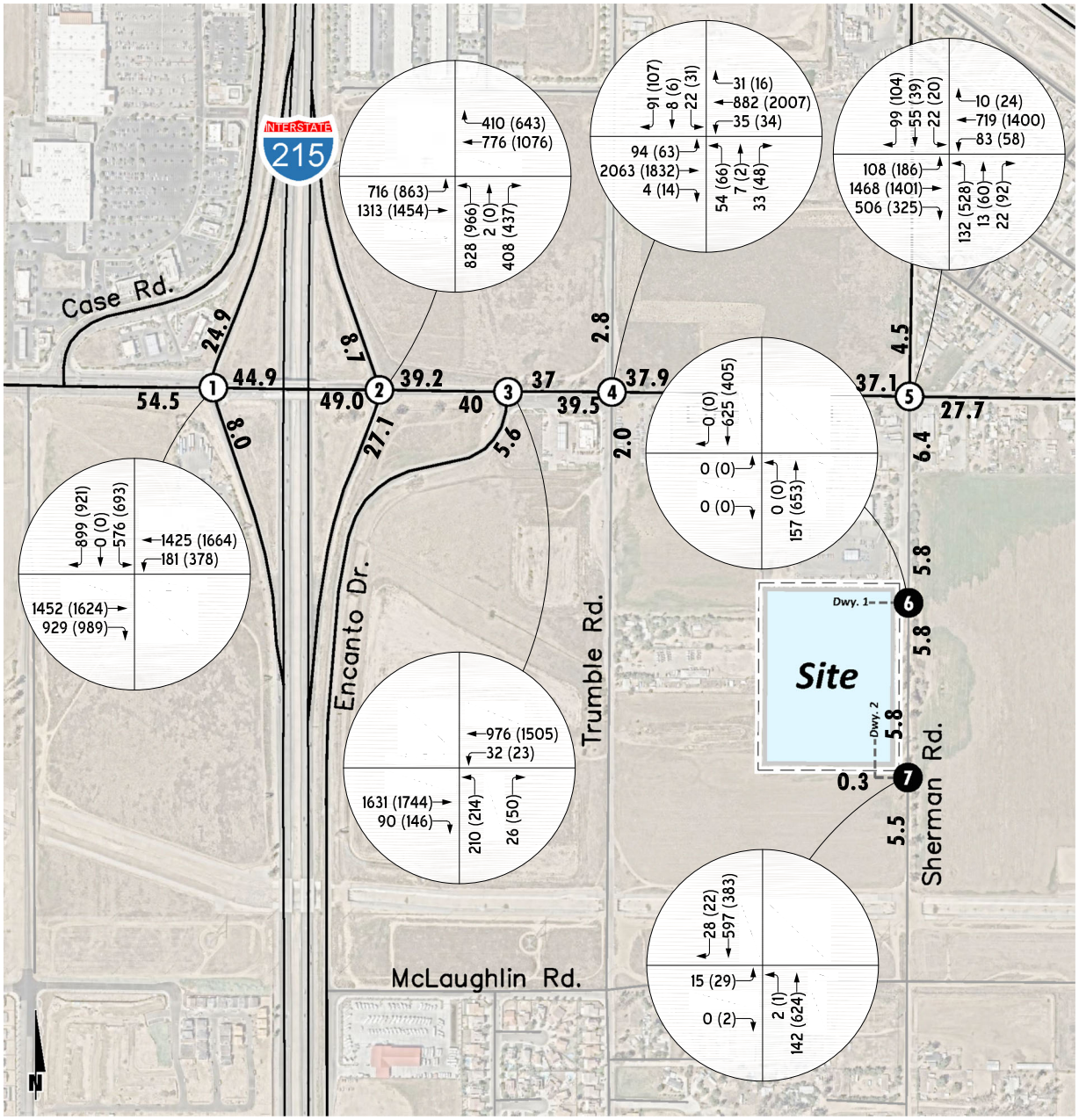
6.3 INTERSECTION OPERATIONS ANALYSIS

EAC and EAPC (2026) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 6-1 for EAC (2026) traffic conditions, which indicates that the following study area intersections are anticipated to operate at an unacceptable LOS during the peak hours:

- I-215 Southbound Ramps & Ethanac Road (#1) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Ethanac Road (#2) – LOS F AM and PM peak hours
- Encanto Drive & Ethanac Road (#3) – LOS F AM and PM peak hours
- Trumble Road & Ethanac Road (#4) – LOS F AM and PM peak hours
- Sherman Road & Ethanac Road (#5) – LOS F AM and PM peak hours

As shown in Table 6-1, there are no additional study area intersections that are anticipated to operate at an unacceptable LOS with the addition of Project traffic under EAPC (2026) traffic conditions.

EXHIBIT 6-1 : EAC (2026) TRAFFIC VOLUMES (ACTUAL VEHICLES)



LEGEND

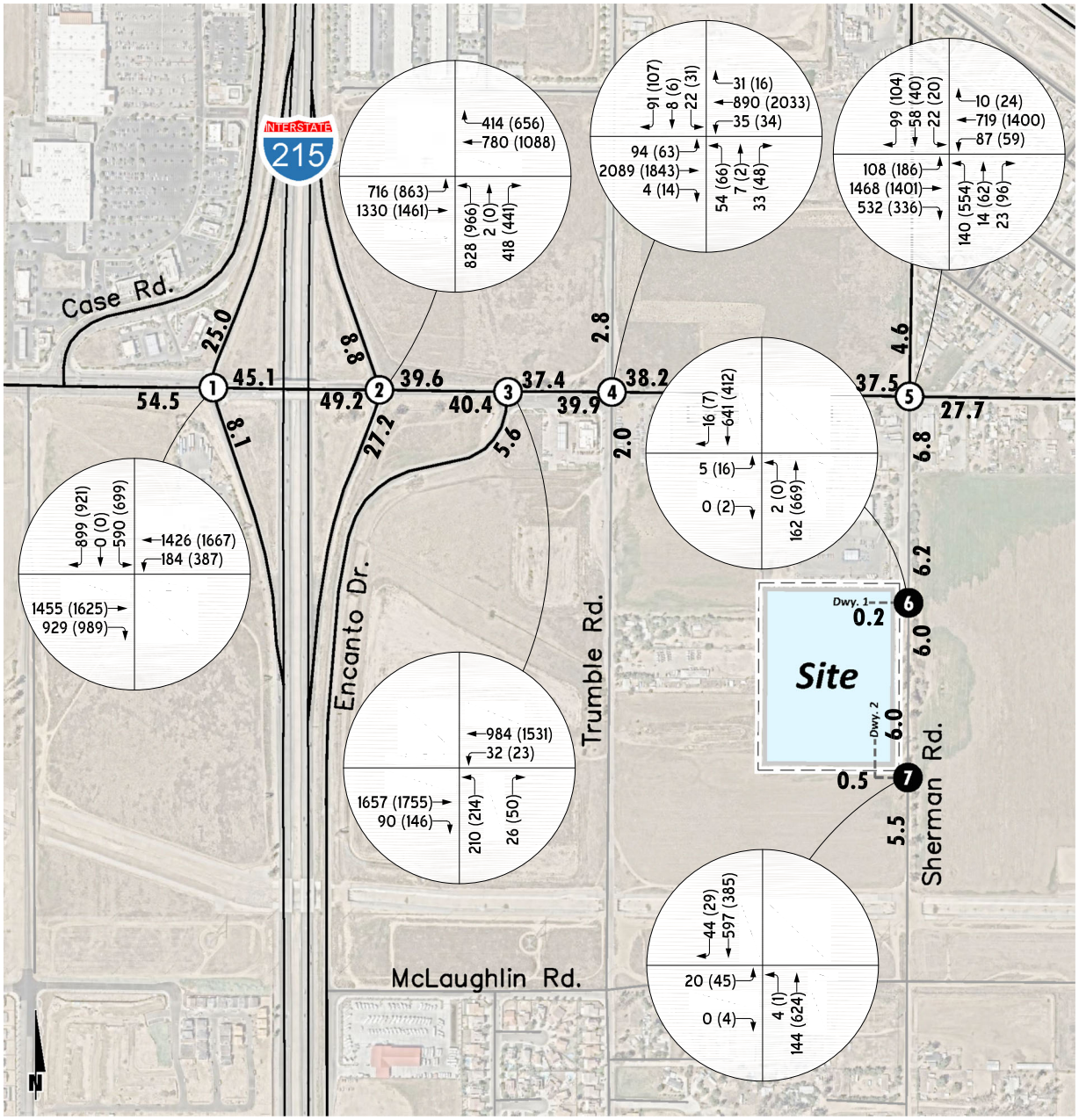
(0) = *Existing Intersection Analysis Location*

(0) = *Future Intersection Analysis Location*

00 (00) = *Peak Hour Intersection Volume AM (PM)*

##.# = *Average Daily Trips (1000's)*

EXHIBIT 6-2 : EAPC (2026) TRAFFIC VOLUMES (ACTUAL VEHICLES)



LEGEND

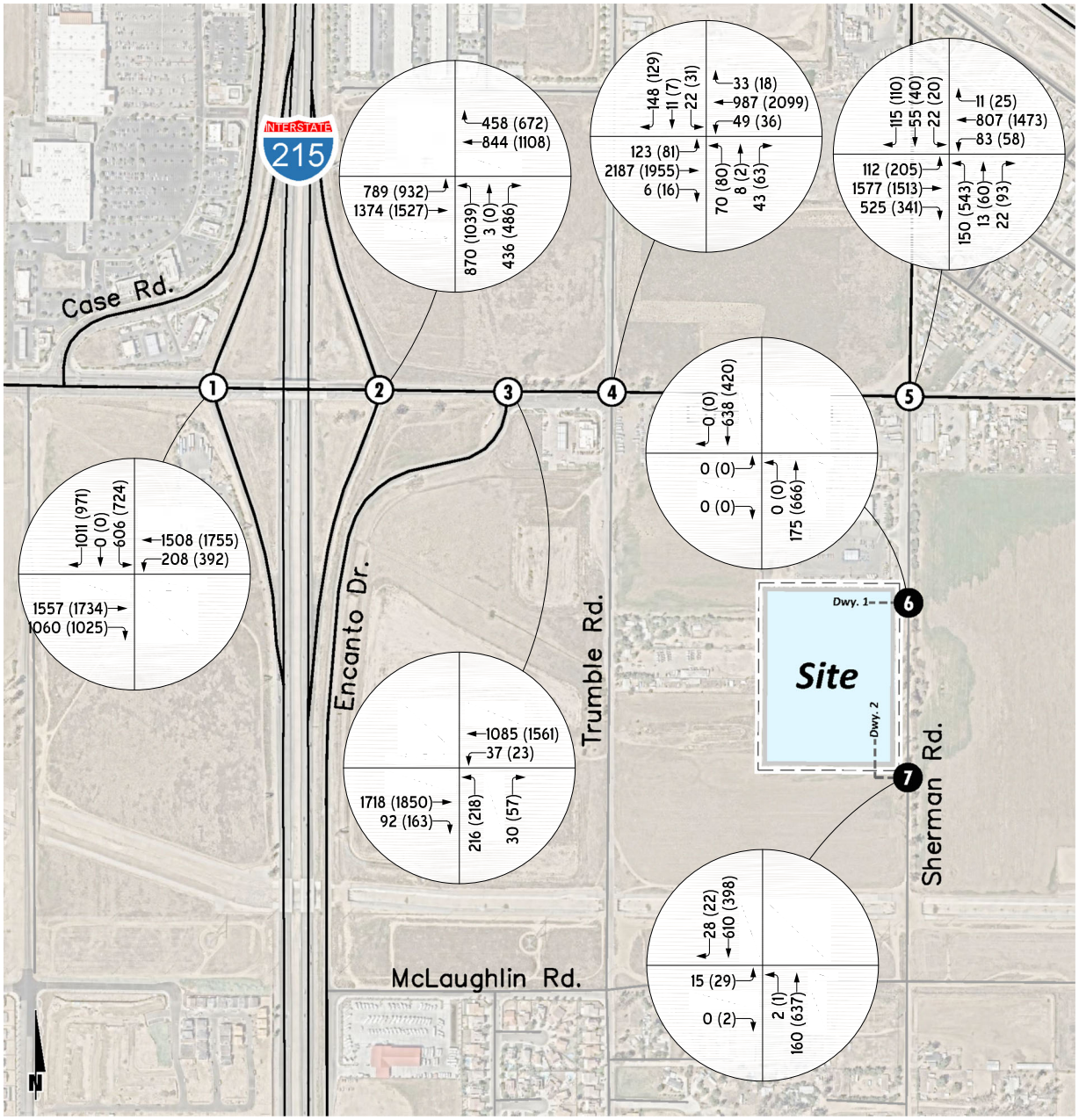
(0) = *Existing Intersection Analysis Location*

0 = *Future Intersection Analysis Location*

00 (00) = *Peak Hour Intersection Volume AM (PM)*

##.# = *Average Daily Trips (1000's)*

EXHIBIT 6-3 : EAC (2026) TRAFFIC VOLUMES (PCE)



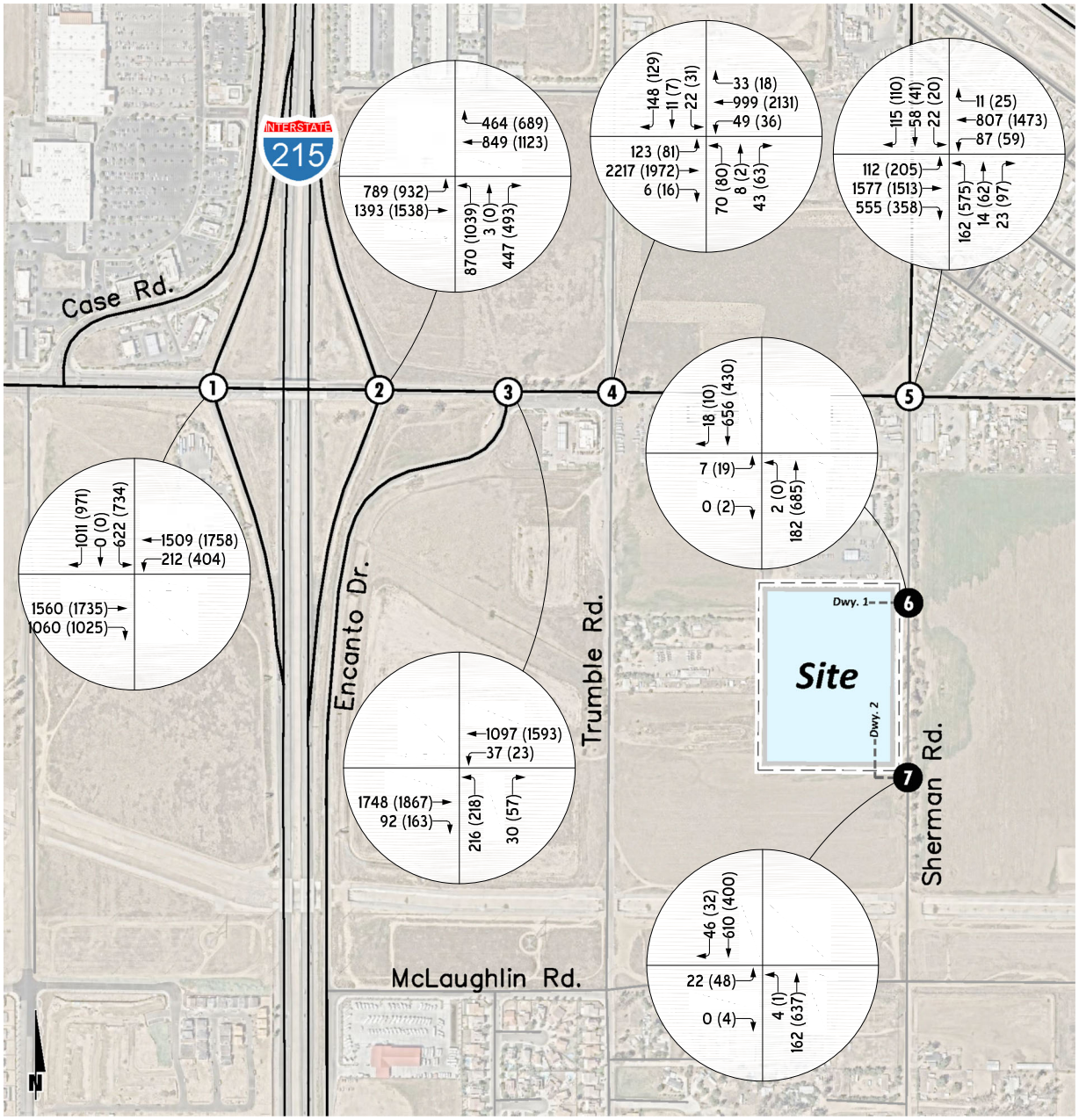
LEGEND

(0) = *Existing Intersection Analysis Location*

0 = *Future Intersection Analysis Location*

00 (00) = *Peak Hour Intersection Volume AM (PM)*

EXHIBIT 6-4 : EAPC (2026) TRAFFIC VOLUMES (PCE)



LEGEND

(0) = *Existing Intersection Analysis Location*

(0) = *Future Intersection Analysis Location*

00 (00) = *Peak Hour Intersection Volume AM (PM)*

TABLE 6-1: INTERSECTION ANALYSIS FOR EAC AND EAPC (2026) CONDITIONS

#	Intersection	Traffic Control[2]	EAC (2026) Delay[1] (secs.) AM	EAC (2026) Delay[1] (secs.) PM	EAC (2026) Level of Service AM	EAC (2026) Level of Service PM	EAPC (2026) Delay[1] (secs.) AM	EAPC (2026) Delay[1] (secs.) PM	EAPC (2026) Level of Service AM	EAPC (2026) Level of Service PM
1	I-215 SB Ramps & Ethanac Rd.	TS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
2	I-215 NB Ramps & Ethanac Rd.	TS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
3	Encanto Dr. & Ethanac Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
4	Trumble Rd. & Ethanac Rd.	TS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
5	Sherman Rd. & Ethanac Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
6	Sherman Rd. & Driveway 1	CSS	Future Intersection				14.2	16.0	B	C
7	Sherman Rd. & Driveway 2	CSS	13.9	15.8	B	C	14.2	16.6	B	C

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (7th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

2 TS = Traffic Signal; CSS = Cross-street Stop; CSS = Improvement

The intersection operations analysis worksheets for EAC and EAPC (2026) traffic conditions are included in Appendices 6.1 and 6.2, respectively.

6.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been conducted for EAC and EAPC (2026) traffic conditions. The traffic signal warrant analysis for EAC and EAPC (2026) traffic conditions are based on planning level ADT volume-based traffic signal warrants. There are no additional unsignalized study area intersections anticipated to meet a traffic signal warrant under EAC and EAPC (2026) traffic conditions, in addition to the intersections identified under Existing traffic conditions (see Appendix 6.3 and 6.3, respectively).

6.5 ROADWAY SEGMENT CAPACITY ANALYSIS

The roadway capacities utilized for the study area roadway segment analysis are obtained from the City Guidelines. These roadway segment capacities are approximate figures only and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand.

Table 6-2 provides a summary of the EAC and EAPC (2026) conditions roadway segment capacity analysis. As shown in Table 6-2, the following study area roadway segments are anticipated to operate at an unacceptable LOS based on the daily roadway capacity thresholds and minimum LOS criteria under EAC and EAPC (2026) traffic conditions:

- Ethanac Road, from I-215 Freeway to Encanto Drive (#1) – LOS F
- Ethanac Road, from Encanto Drive to Trumble Road (#2) – LOS F
- Ethanac Road, from Trumble Road to Sherman Road (#3) – LOS F

TABLE 6-2: ROADWAY SEGMENT CAPACITY ANALYSIS FOR EAC AND EAPC (2026) CONDITIONS

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Without Project 2026	Without Project V/C[2]	Without Project LOS[3]	With Project 2026	With Project V/C[2]	With Project LOS[3]
1	Ethanac Road	I-215 Freeway to Encanto Dr.	2D	32,000	40,008	1.250	**F**	40,376	1.262	**F**
2		Encanto Dr. to Trumble Rd.	2D	32,000	39,536	1.235	**F**	39,904	1.247	**F**
3		Trumble Rd. to Sherman Rd.	2U	32,000	37,881	1.184	**F**	38,249	1.195	**F**
4	Sherman Road	South of Ethanac Rd.	2U	17,050	6,383	0.187	A	6,811	0.200	A

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] The volumes shown are based on LOS "E" roadway segment capacity thresholds as defined by the Riverside County Transportation Department and City Guidelines.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

As shown in Table 6-2, there are no additional study area roadway segments that are anticipated to operate at an unacceptable LOS with the addition of Project traffic under Horizon Year (2045) With Project traffic conditions.

6.6 OFF-RAMP QUEUING ANALYSIS

Queuing analysis findings for EAC and EAPC traffic conditions are presented in Table 6-3. As shown in Table 6-3, the following study area off-ramps are anticipated to experience queuing issues during the peak hours under EAC (2026) traffic conditions:

- I-215 Southbound Ramps & Ethanac Road (#1) southbound right – AM and PM peak hours
- I-215 Northbound Ramps & Ethanac Road (#2) northbound shared left-through – PM peak hour only
- I-215 Northbound Ramps & Ethanac Road (#2) northbound right – AM and PM peak hours

TABLE 6-3: PEAK HOUR QUEUING SUMMARY FOR EAC AND EAPC (2026) CONDITIONS

#	Intersection	Movement	Available Stacking Distance (Feet)	EAC (2026) 95th Percentile Queue (Feet) AM Peak	EAC (2026) 95th Percentile Queue (Feet) PM Peak	EAC (2026) Acceptable?[1] AM	EAC (2026) Acceptable?[1] PM	EAPC (2026) 95th Percentile Queue (Feet) AM Peak	EAPC (2026) 95th Percentile Queue (Feet) PM Peak	EAPC (2026) Acceptable?[1] AM	EAPC (2026) Acceptable?[1] PM
1	I-215 SB Ramps & Ethanac Rd.	SBT	1375	845 [2]	974 [2]	Yes	Yes	869 [2]	989 [2]	Yes	Yes
		SBR	240	1409 [2]	1280 [2]	**No**	**No**	1409 [2]	1280 [2]	**No**	**No**
2	I-215 NB Ramps & Ethanac Rd.	NBL/T	1325	1275 [2]	1429 [2]	Yes	**No**	1275 [2]	1429 [2]	Yes	**No**
		NBR	270	533 [2]	566 [2]	**No**	**No**	552 [2]	577 [2]	**No**	**No**

BOLD = 95th percentile queue exceeds the available storage.

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

There are no additional movements anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project traffic under EAPC (2026) traffic conditions. Worksheets for EAC and EAPC (2026) traffic conditions queuing analysis are provided in Appendix 6.5 and 6.6, respectively.

6.7 CUMULATIVE DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

This section provides a summary of Project deficiencies and recommended improvements. Improvements needed to achieve acceptable LOS have been identified at intersections, roadway segments, or study area off-ramps that are anticipated to operate at a deficient LOS under EAPC (2026) traffic conditions.

6.7.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

As previously shown in Table 6-1, study area intersections are anticipated to operate at unacceptable LOS during the peak hours under EAPC (2026) traffic conditions. Improvements necessary to improve the intersection back to an acceptable LOS and the effectiveness of the proposed improvement is presented in Table 6-4.

TABLE 6-4: INTERSECTION ANALYSIS FOR EAPC (2026) CONDITIONS WITH IMPROVEMENTS

		Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
	Traffic Control[3]	Northbound			Southbound			Eastbound			Westbound						
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1 I-215 SB Ramps & Ethanac Rd.																	
Without Improvements:	TS	0	0	0	0	1	1	0	1	1	1	2	0	**>100.0**	**>100.0**	**F**	**F**
With Improvements:	TS	0	0	0	**1**	**1**	1	0	**2**	1	**2**	2	0	39.8	43.6	D	D
2 I-215 NB Ramps & Ethanac Rd.																	
Without Improvements:	TS	0	1	1	0	0	0	1	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
With Improvements:	TS	**1**	1	1	0	0	0	**2**	**2**	0	0	**2**	**1**	40.1	41.4	D	D
3 Encanto Dr. & Ethanac Rd.																	
Without Improvements:	CSS	0	1	0	0	0	0	0	1	0	1	1	0	**>100.0**	**>100.0**	**F**	**F**
With Improvements[4]:	**TS**	0	1	0	0	0	0	0	**2**	**1**	1	**2**	0	13.1	12.8	B	B
4 Trumble Rd. & Ethanac Rd.																	
Without Improvements:	TS	1	1	0	1	1	0	1	1	1	1	1	0	**>100.0**	**>100.0**	**F**	**F**
With Improvements:	TS	1	1	0	1	1	0	1	**2**	1	1	**2**	0	53.3	45.3	D	D
5 Sherman Rd. & Ethanac Rd.																	
Without Improvements:	CSS	0	1	0	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
With Improvements:	**TS**	**2**	1	0	**1**	1	**1**	**1**	**2**	**1>**	**1**	**2**	**1**	23.2	52.7	C	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; **1** = Improvement; > = Right-Turn Overlap Phasing

[2] Per the Highway Capacity Manual (7th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross-Street Stop; **TS** = Improvement

[4] Improvements are only required if this intersection is not vacated by the Perris Towne Center Project.

EAPC (2026) conditions, with improvements, HCM calculation worksheets are provided in Appendix 6.7.

6.7.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT ROADWAY SEGMENTS

Improvement strategies have been recommended at study area roadway segments that have been identified as deficient under EAPC (2026) traffic conditions. The improvements are consistent with the intersection improvements identified in Table 6-4. The effectiveness of the recommended improvement strategies to address EAPC (2026) roadway segment deficiencies are presented in Table 6-5.

TABLE 6-5: ROADWAY SEGMENT CAPACITY ANALYSIS FOR EAPC (2026) CONDITIONS WITH IMPROVEMENTS

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	With Project 2026	With Project V/C[2]	With Project LOS[3]
1	Ethanac Road	I-215 Freeway to Encanto Dr.	**4D**	64,000	40,376	0.631	B
2		Encanto Dr. to Trumble Rd.	**4D**	64,000	39,904	0.623	B
3		Trumble Rd. to Sherman Rd.	**4D**	64,000	38,249	0.598	A

4D = Improvement

[1] The volumes shown are based on LOS "E" roadway segment capacity thresholds as defined by the Riverside County Transportation Department and City Guidelines.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

6.7.3 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUEING DEFICIENCIES

Improvement strategies have been recommended at study area off-ramps that have been identified as deficient under EAPC (2026) traffic conditions. The improvements are consistent with the intersection improvements identified in Table 6-4, with the following recommend stacking distances added:

- I-215 Southbound Ramps & Ethanac Road (#1) southbound left – 800-feet
- I-215 Northbound Ramps & Ethanac Road (#2) northbound left – 700-feet

The effectiveness of the recommended improvement strategies to address EAPC (2026) off-ramp deficiencies are presented in Table 6-6. Off-ramp queueing analysis worksheets for EAPC (2026) conditions, with improvements, are provided in Appendix 6.8.

TABLE 6-6: PEAK HOUR QUEUING SUMMARY FOR EAPC (2026) CONDITIONS WITH IMPROVEMENTS

#	Intersection	Movement	Available Stacking Distance (Feet)	Without Improvements 95th Percentile Queue (Feet) AM Peak	Without Improvements 95th Percentile Queue (Feet) PM Peak	Without Improvements Acceptable? [1] AM	Without Improvements Acceptable? [1] PM	With Improvements 95th Percentile Queue (Feet) AM Peak	With Improvements 95th Percentile Queue (Feet) PM Peak	With Improvements Acceptable? [1] AM	With Improvements Acceptable? [1] PM
1	I-215 SB Ramps & Ethanac Rd.	SBL	800	Not Applicable				579	732 [2]	Yes	Yes
		SBL/T/R	1375	869 [2]	989 [2]	Yes	Yes	498	660 [2]	Yes	Yes
		SBR	240	1409 [2]	1280 [2]	**No**	**No**	800 [2,3]	655 [2,3]	Yes	Yes
2	I-215 NB Ramps & Ethanac Rd.	NBL	700	Not Applicable				551 [2]	677 [2]	Yes	Yes
		NBL/T	1325	1275 [2]	1429 [2]	Yes	**No**	527 [2]	644 [2]	Yes	Yes
		NBR	270	552 [2]	577 [2]	**No**	**No**	517 [2,3]	567 [2,3]	Yes	Yes

BOLD = 95th percentile queue exceeds the available storage.

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

7 HORIZON YEAR (2045) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Horizon Year (2045) conditions and the resulting intersection operations, traffic signal warrant, roadway segment, and freeway off-ramp queuing analyses.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Horizon Year (2045) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Horizon Year (2045) conditions (e.g., intersection and roadway improvements at the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Horizon Year (2045) conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages).
- Other parallel facilities, that although not evaluated for the purposes of this analysis, are anticipated to be in place for Horizon Year traffic conditions and would affect the travel patterns within the study area.

7.2 HORIZON YEAR (2045) TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-processed volumes obtained from RIVCOM (plus growth), plus the traffic generated by the proposed Project for With Project conditions. The weekday ADT and weekday AM and PM peak hour volumes, in actual vehicles, which can be expected for Horizon Year (2045) Without and With Project traffic conditions, in actual vehicles, are shown on Exhibits 7-1 and 7-2, respectively. The weekday ADT and weekday AM and PM peak hour volumes, in PCE, which can be expected for Horizon Year (2045) Without and With Project traffic conditions are shown on Exhibits 7-3 and 7-4, respectively.

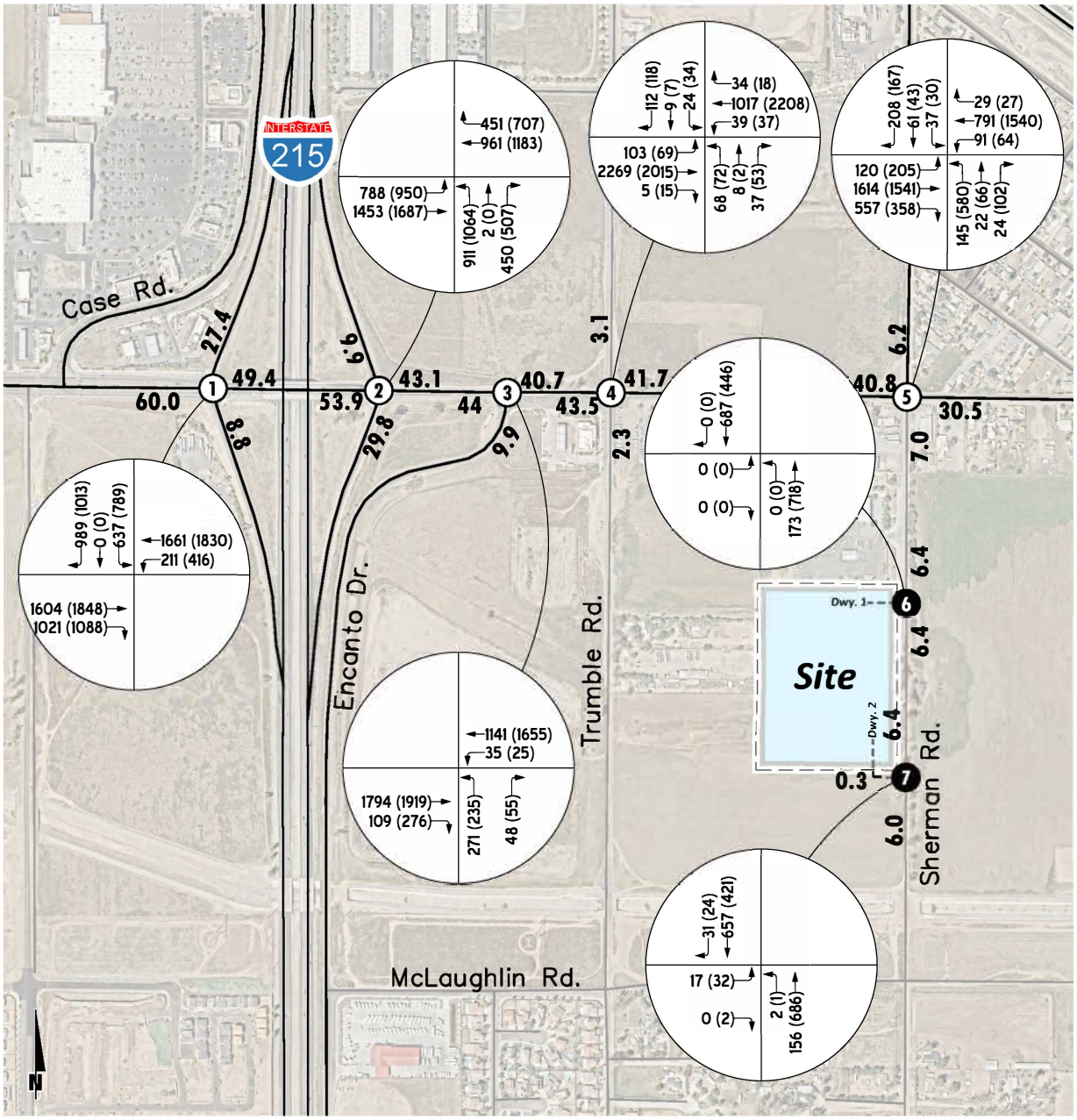
7.3 INTERSECTION OPERATIONS ANALYSIS

Horizon Year (2045) conditions peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 7-1 for Horizon Year (2045) conditions which indicates the following study area intersections are anticipated to operate at an unacceptable LOS under Horizon Year (2045) Without Project traffic conditions:

- I-215 Southbound Ramps & Ethanac Road (#1) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Ethanac Road (#2) – LOS F AM and PM peak hours
- Encanto Drive & Ethanac Road (#3) – LOS F AM and PM peak hours
- Trumble Road & Ethanac Road (#4) – LOS F AM and PM peak hours
- Sherman Road & Ethanac Road (#5) – LOS F AM and PM peak hours

As shown in Table 7-1, there are no additional study area intersections that are anticipated to operate at an unacceptable LOS with the addition of Project traffic under Horizon Year (2045) With Project traffic conditions.

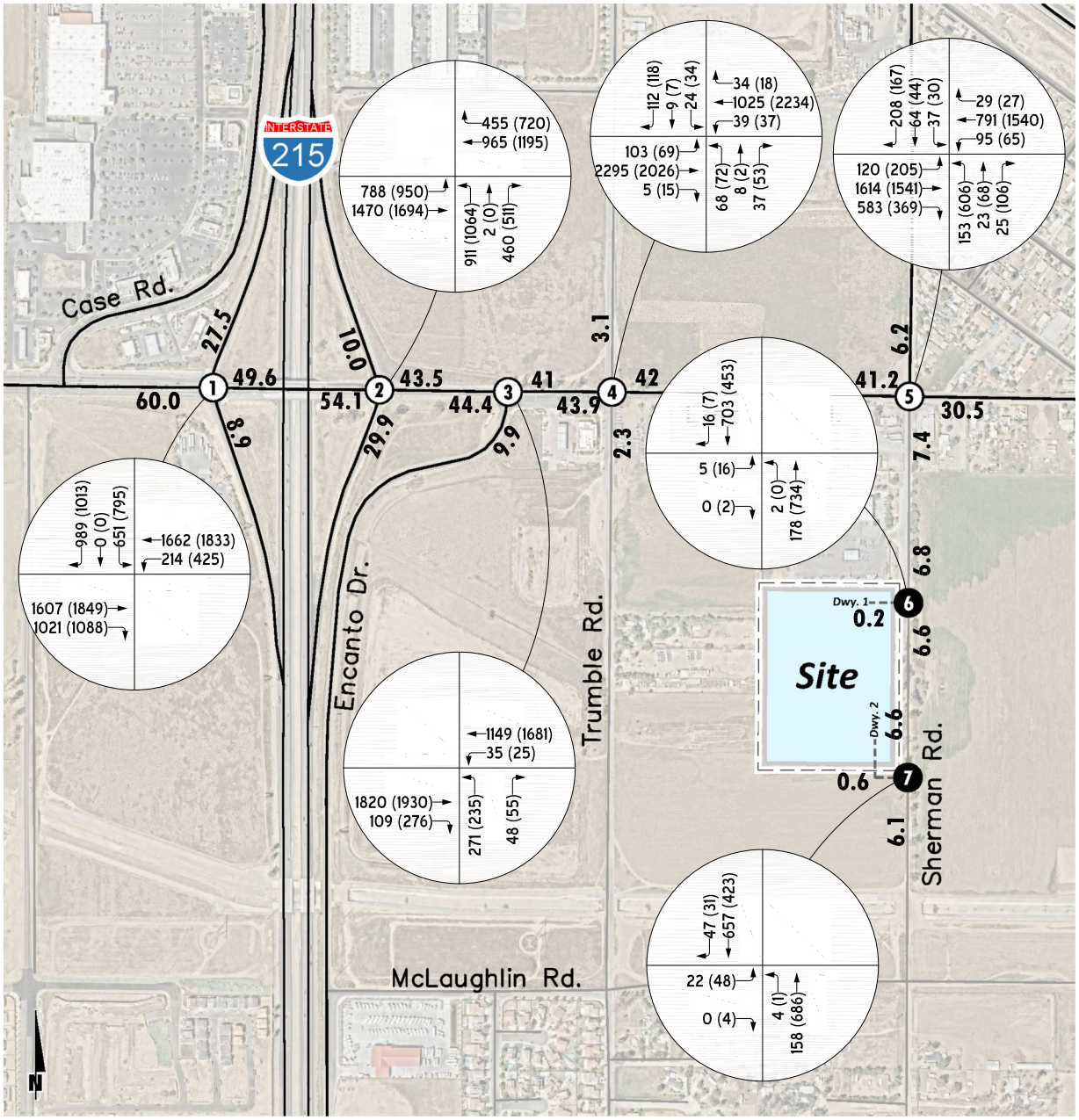
EXHIBIT 7-1 : HORIZON YEAR (2045) WITHOUT PROJECT TRAFFIC VOLUMES (ACTUAL VEHICLES)



LEGEND

(0)	*= Existing Intersection Analysis Location*
0	*= Future Intersection Analysis Location*
00 (00)	*= Peak Hour Intersection Volume AM (PM)*
##.#	*= Average Daily Trips (1000's)*

EXHIBIT 7-2 : HORIZON YEAR (2045) WITH PROJECT TRAFFIC VOLUMES (ACTUAL VEHICLES)

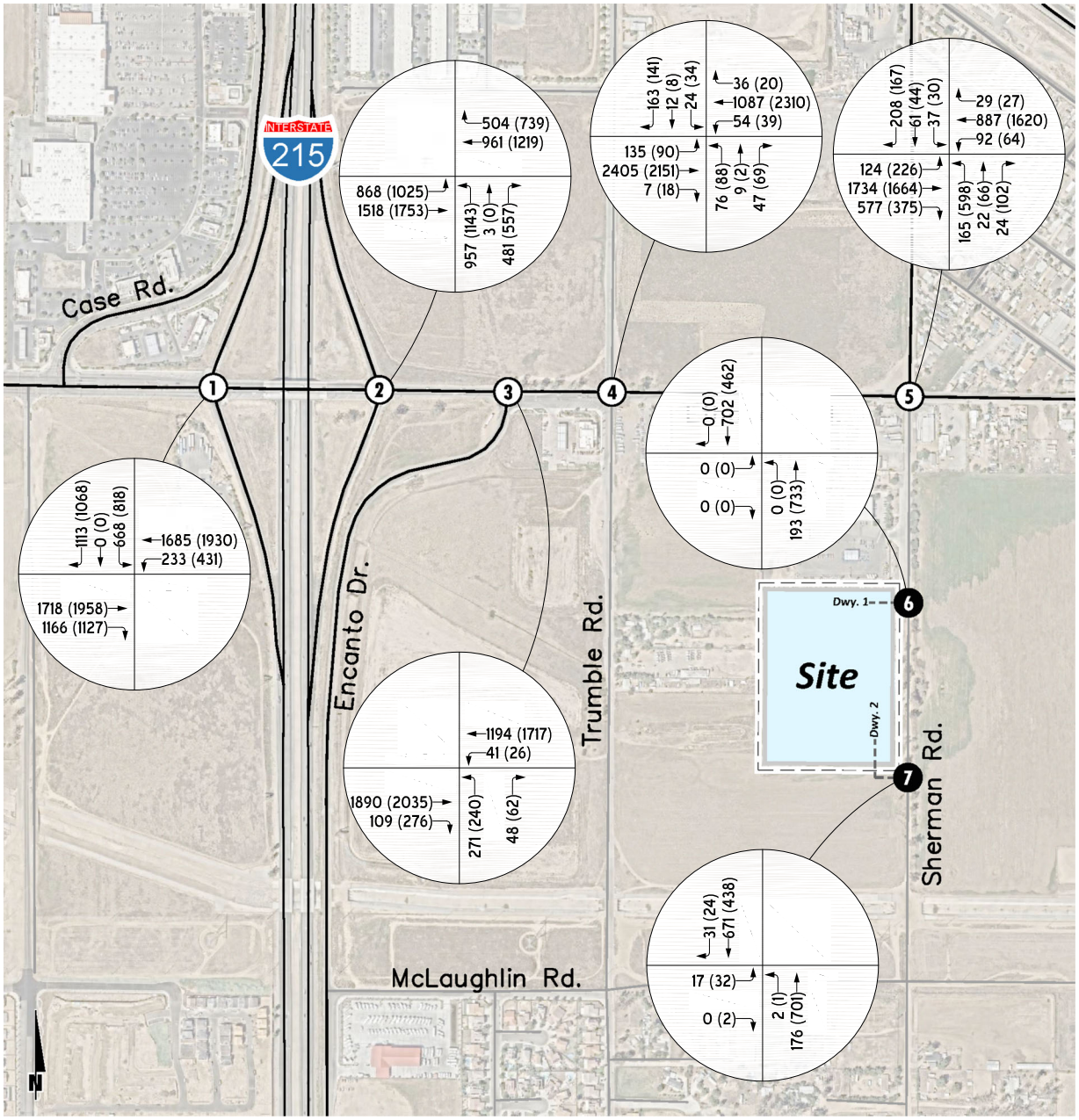


LEGEND

(0)	*= Existing Intersection Analysis Location*
0	*= Future Intersection Analysis Location*
00 (00)	*= Peak Hour Intersection Volume AM (PM)*
##.#	*= Average Daily Trips (1000's)*

15796 vol.dwg

EXHIBIT 7-3 : HORIZON YEAR (2045) WITHOUT PROJECT TRAFFIC VOLUMES (PCE)



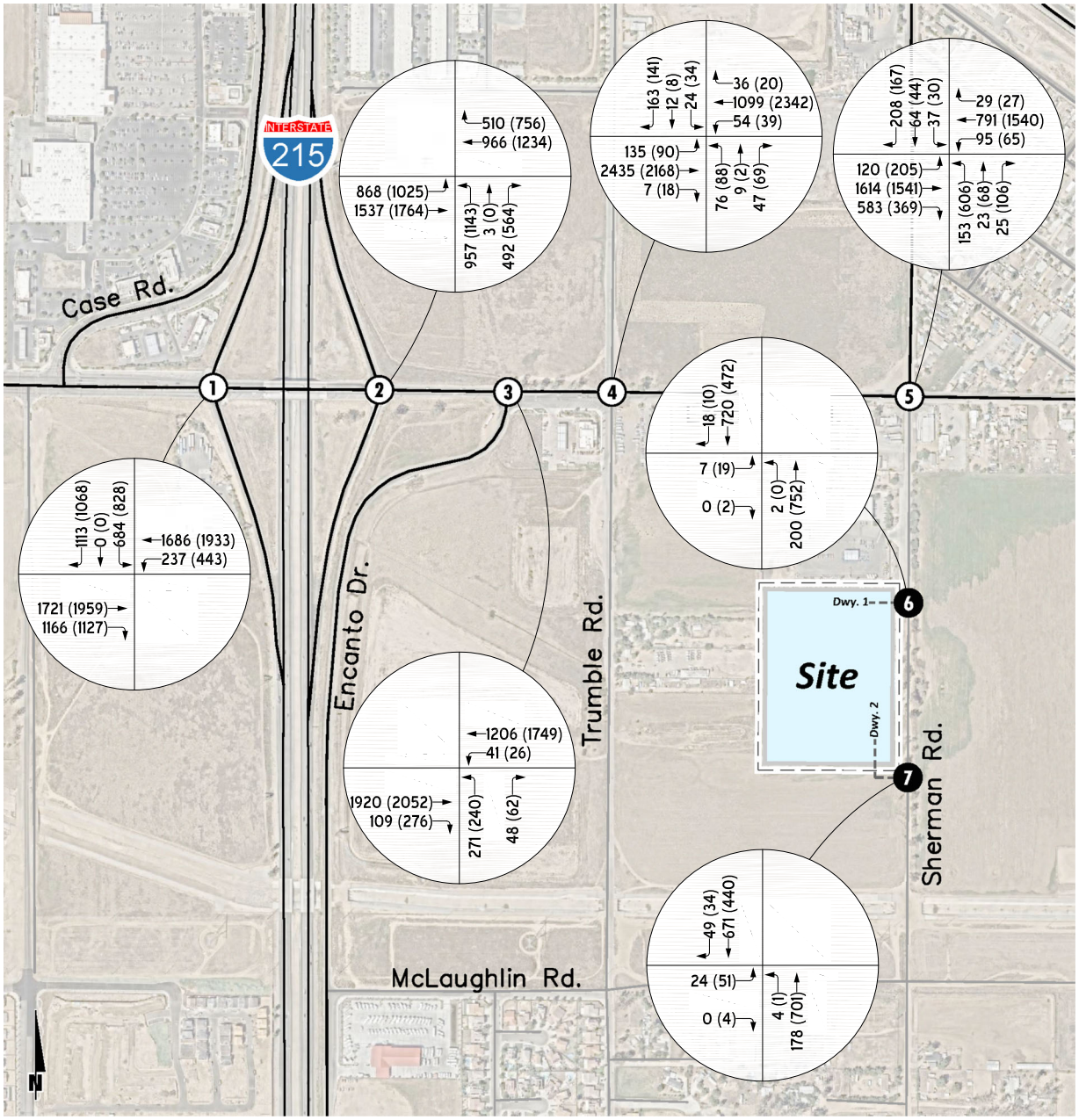
LEGEND

(0) = *Existing Intersection Analysis Location*

(0) = *Future Intersection Analysis Location*

00 (00) = *Peak Hour Intersection Volume AM (PM)*

EXHIBIT 7-4 : HORIZON YEAR (2045) WITH PROJECT TRAFFIC VOLUMES (PCE)



LEGEND

(0) = *Existing Intersection Analysis Location*

(0) = *Future Intersection Analysis Location*

00 (00) = *Peak Hour Intersection Volume AM (PM)*

TABLE 7-1: INTERSECTION ANALYSIS FOR HORIZON YEAR (2045) CONDITIONS

#	Intersection	Traffic Control[2]	2045 Without Project Delay[1] (secs.) AM	2045 Without Project Delay[1] (secs.) PM	2045 Without Project Level of Service AM	2045 Without Project Level of Service PM	2045 With Project Delay[1] (secs.) AM	2045 With Project Delay[1] (secs.) PM	2045 With Project Level of Service AM	2045 With Project Level of Service PM
1	I-215 SB Ramps & Ethanac Rd.	TS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
2	I-215 NB Ramps & Ethanac Rd.	TS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
3	Encanto Dr. & Ethanac Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
4	Trumble Rd. & Ethanac Rd.	TS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
5	Sherman Rd. & Ethanac Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
6	Sherman Rd. & Driveway 1	CSS	Future Intersection				15.0	17.1	B	C
7	Sherman Rd. & Driveway 2	CSS	14.7	17.1	B	C	15.0	18.0	C	C

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (7th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

2 TS = Traffic Signal; CSS = Cross-street Stop; CSS = Improvement

The intersection operations analysis worksheets for Horizon Year (2045) Without and Without Project traffic conditions are included in Appendices 7.1 and 7.2, respectively.

7.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been conducted for Horizon Year (2045) Without and With Project traffic conditions. The traffic signal warrant analysis for Horizon Year (2045) Without and With Project traffic conditions are based on planning level ADT volume-based traffic signal warrants. There are no additional unsignalized study area intersections anticipated to meet a traffic signal warrant under Horizon Year (2045) Without and With Project traffic conditions, in addition to the intersections identified under Existing traffic conditions (see Appendix 7.3 and 7.4, respectively).

7.5 ROADWAY SEGMENT CAPACITY ANALYSIS

The roadway capacities utilized for the study area roadway segment analysis are obtained from the City Guidelines. These roadway segment capacities are approximate figures only and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand.

Table 7-2 provides a summary of the Horizon Year (2045) Without and With Project conditions roadway segment capacity analysis. As shown in Table 7-2, the following study area roadway segments are anticipated to operate at an unacceptable LOS based on the daily roadway capacity thresholds and minimum LOS criteria under Horizon Year (2045) Without Project traffic conditions:

- Ethanac Road, from I-215 Freeway to Encanto Drive (#1) – LOS F
- Ethanac Road, from Encanto Drive to Trumble Road (#2) – LOS F
- Ethanac Road, from Trumble Road to Sherman Road (#3) – LOS F

TABLE 7-2: ROADWAY SEGMENT CAPACITY ANALYSIS FOR HORIZON YEAR (2045) CONDITIONS

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Without Project 2045	Without Project V/C[2]	Without Project LOS[3]	With Project 2045	With Project V/C[2]	With Project LOS[3]
1	Ethanac Road	I-215 Freeway to Encanto Dr.	2D	32,000	44,008	1.375	**F**	44,376	1.387	**F**
2		Encanto Dr. to Trumble Rd.	2D	32,000	43,490	1.359	**F**	43,858	1.371	**F**
3		Trumble Rd. to Sherman Rd.	2U	32,000	41,669	1.302	**F**	42,037	1.314	**F**
4	Sherman Road	South of Ethanac Rd.	2U	17,050	7,021	0.206	A	7,449	0.218	A

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] The volumes shown are based on LOS "E" roadway segment capacity thresholds as defined by the Riverside County Transportation Department and City Guidelines.
[2] V/C = Volume to Capacity Ratio
[3] LOS = Level of Service

As shown in Table 7-2, there are no additional study area roadway segments that are anticipated to operate at an unacceptable LOS with the addition of Project traffic under Horizon Year (2045) With Project traffic conditions.

7.6 OFF-RAMP QUEUING ANALYSIS

Queuing analysis findings for Horizon Year (2045) Without and With Project traffic conditions are presented in Table 7-3. As shown in Table 7-3, the following study area off-ramps are anticipated to experience queuing issues during the peak hours under Horizon Year (2045) Without Project traffic conditions:

- I-215 Southbound Ramps & Ethanac Road (#1) southbound right – AM and PM peak hours
- I-215 Northbound Ramps & Ethanac Road (#2) northbound shared left-through – AM and PM peak hours
- I-215 Northbound Ramps & Ethanac Road (#2) northbound right – AM and PM peak hours

TABLE 7-3: PEAK HOUR QUEUING SUMMARY FOR HORIZON YEAR (2045) CONDITIONS

#	Intersection	Movement	Available Stacking Distance (Feet)	2045 Without Project 95th Percentile Queue (Feet) AM Peak	2045 Without Project 95th Percentile Queue (Feet) PM Peak	2045 Without Project Acceptable?[1] AM	2045 Without Project Acceptable?[1] PM	2045 With Project 95th Percentile Queue (Feet) AM Peak	2045 With Project 95th Percentile Queue (Feet) PM Peak	2045 With Project Acceptable?[1] AM	2045 With Project Acceptable?[1] PM
1	I-215 SB Ramps & Ethanac Rd.	SBT	1375	939 [2]	1110 [2]	Yes	Yes	964 [2]	1125 [2]	Yes	Yes
		SBR	240	1563 [2]	1419 [2]	**No**	**No**	1563 [2]	1419 [2]	**No**	**No**
2	I-215 NB Ramps & Ethanac Rd.	NBL/T	1325	1406 [2]	1576 [2]	**No**	**No**	1406 [2]	1576 [2]	**No**	**No**
		NBR	270	607 [2]	673 [2]	**No**	**No**	624 [2]	686 [2]	**No**	**No**

BOLD = 95th percentile queue exceeds the available storage.

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

There are no additional movements anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project traffic under Horizon Year (2045) With Project traffic conditions. Worksheets for Horizon Year (2045) Without and With Project traffic conditions queuing analysis are provided in Appendix 7.5 and 7.6, respectively.

7.7 CUMULATIVE DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

This section provides a summary of Project deficiencies and recommended improvements. Improvements needed to achieve acceptable LOS have been identified at intersections, roadway segments, or study area off-ramps that are anticipated to operate at a deficient LOS under Horizon Year (2045) With Project traffic conditions.

7.7.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

As previously shown in Table 7-1, study area intersections are anticipated to operate at unacceptable LOS during the peak hours under Horizon Year (2045) With Project traffic conditions. Improvements necessary to improve the intersection back to an acceptable LOS and the effectiveness of the proposed improvement is presented in Table 7-4.

TABLE 7-4: INTERSECTION ANALYSIS FOR EAPC (2026) CONDITIONS WITH IMPROVEMENTS

	Traffic	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
		Northbound			Southbound			Eastbound			Westbound						
	Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1 I-215 SB Ramps & Ethanac Rd.																	
Without Improvements:	TS	0	0	0	0	1	1	0	1	1	1	2	0	**>100.0**	**>100.0**	**F**	**F**
With Improvements:	TS	0	0	0	**1**	1	**2**	0	**3**	1	**0**	3	**1>>**	21.0	20.6	C	C
2 I-215 NB Ramps & Ethanac Rd.																	
Without Improvements:	TS	0	1	1	0	0	0	1	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
With Improvements:	TS	**1**	1	**2**	0	0	0	**0**	**2**	**1>>**	0	**3**	**1**	15.9	19.5	B	B
3 Encanto Dr. & Ethanac Rd.																	
Without Improvements:	CSS	0	1	0	0	0	0	0	1	0	1	1	0	**>100.0**	**>100.0**	**F**	**F**
With Improvements[4]:	**TS**	**1**	**0**	**1**	0	0	0	0	**3**	**1**	1	**3**	0	11.8	9.5	B	A
4 Trumble Rd. & Ethanac Rd.																	
Without Improvements:	TS	1	1	0	1	1	0	1	1	1	1	1	0	**>100.0**	**>100.0**	**F**	**F**
With Improvements:	TS	1	1	0	1	1	0	1	**3**	1	1	**3**	0	48.1	29.9	D	C
5 Sherman Rd. & Ethanac Rd.																	
Without Improvements:	CSS	0	1	0	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
With Improvements:	**TS**	**2**	1	**1**	**1**	1	**1**	**2**	**3**	**1>**	**2**	**3**	**1**	20.5	32.3	C	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; **1** = Improvement; > = Right-Turn Overlap Phasing

[2] Per the Highway Capacity Manual (7th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross-Street Stop; **TS** = Improvement

[4] Improvements are only required if this intersection is not vacated by the Perris Towne Center Project.

Horizon Year (2045) With Project conditions, with improvements, HCM calculation worksheets are provided in Appendix 7.7.

7.7.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT ROADWAY SEGMENTS

Improvement strategies have been recommended at study area roadway segments that have been identified as deficient under Horizon Year (2045) With Project traffic conditions. The improvements are consistent with the intersection improvements identified in Table 7-4. The effectiveness of the recommended improvement strategies to address Horizon Year (2045) With Project roadway segment deficiencies are presented in Table 7-5.

TABLE 7-5: ROADWAY SEGMENT CAPACITY ANALYSIS FOR HORIZON YEAR (2045) WITH PROJECT CONDITIONS WITH IMPROVEMENTS

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	With Project 2045	With Project V/C[2]	With Project LOS[3]
1	Ethanac Road	I-215 Freeway to Encanto Dr.	**6D**	95,000	44,376	0.467	A
2		Encanto Dr. to Trumble Rd.	**6D**	95,000	43,858	0.462	A
3		Trumble Rd. to Sherman Rd.	**6D**	95,000	42,037	0.442	A

6D = Improvement

[1] The volumes shown are based on LOS "E" roadway segment capacity thresholds as defined by the Riverside County Transportation Department and City Guidelines.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

7.7.3 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUEING DEFICIENCIES

Improvement strategies have been recommended at study area off-ramps that have been identified as deficient under Horizon Year (2045) With Project traffic conditions. The improvements are consistent with the improvements identified for EAPC (2026) conditions and the intersection improvements identified in Table 7-4, with the following recommend stacking distances added:

- I-215 Southbound Ramps & Ethanac Road (#1) southbound left – 800-feet
- I-215 Northbound Ramps & Ethanac Road (#2) northbound left – 700-feet

The effectiveness of the recommended improvement strategies to address Horizon Year (2045) With Project off-ramp deficiencies are presented in Table 7-6. Off-ramp queueing analysis worksheets for Horizon Year (2045) With Project conditions, with improvements, are provided in Appendix 7.8.

TABLE 7-6: PEAK HOUR QUEUING SUMMARY FOR HORIZON YEAR (2045) WITH PROJECT CONDITIONS WITH IMPROVEMENTS

#	Intersection	Movement	Available Stacking Distance (Feet)	Without Improvements 95th Percentile Queue (Feet) AM Peak	Without Improvements 95th Percentile Queue (Feet) PM Peak	Without Improvements Acceptable? [1] AM	Without Improvements Acceptable? [1] PM	With Improvements 95th Percentile Queue (Feet) AM Peak	With Improvements 95th Percentile Queue (Feet) PM Peak	With Improvements Acceptable? [1] AM	With Improvements Acceptable? [1] PM
1	I-215 SB Ramps & Ethanac Rd.	SBL	800	Not Applicable				259	328	Yes	Yes
		SBL/T	1375	939 [2]	1110 [2]	Yes	Yes	250	316	Yes	Yes
		SBR	240	1563 [2]	1419 [2]	**No**	**No**	687 [2,3]	591 [2,3]	Yes	Yes
2	I-215 NB Ramps & Ethanac Rd.	NBL	700	Not Applicable				440	509	Yes	Yes
		NBL/T	1325	1406 [2]	1576 [2]	**No**	**No**	422	483	Yes	Yes
		NBR	270	607 [2]	673 [2]	**No**	**No**	194	209	Yes	Yes

BOLD = 95th percentile queue exceeds the available storage.

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

8 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements within the City of Menifee are funded through a combination of direct project mitigation, development impact fee programs or fair share contributions, such as the City of Menifee DIF program. Identification and timing of needed improvements is generally determined through local jurisdictions based upon a variety of factors.

8.1 RIVERSIDE COUNTY TRANSPORTATION UNIFORM MITIGATION FEE (TUMF)

The TUMF program is administered by the Western Riverside Council of Governments (WRCOG) based upon a regional Nexus Study most recently updated in 2016 to address major changes in right of way acquisition and improvement cost factors. (9) This regional program was put into place to ensure that development pays its fair share and that funding is in place for construction of facilities needed to maintain the requisite level of service and critical to mobility in the region. TUMF is a truly regional mitigation fee program imposed and implemented in every jurisdiction in Western Riverside County.

8.2 CITY OF MENIFEE DEVELOPMENT IMPACT FEE (DIF) PROGRAM

The Project will also be subject to City of Menifee's DIF program which includes a component for roads and signals. The City's DIF program was updated in July 2020 and discusses the local (as opposed to regional) streets and signal improvements planned for the City through build-out of the existing City limits.

8.3 MEASURE A

Measure A, Riverside County's half-cent sales tax for transportation, was adopted by voters in 1988 and extended in 2002. It will continue to fund transportation improvements through 2039. Measure A funds a wide variety of transportation projects and services throughout the County. The Riverside County Transportation Commission (RCTC) is responsible for administering the program. Measure A dollars are spent in accordance with a voter-approved expenditure plan that was adopted as part of the 1988 election.

8.4 FAIR SHARE CONTRIBUTION

Project improvements may include a combination of fee payments to established programs, construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City's discretion). When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Detailed fair share calculations, for each peak hour, have been provided in Table 8-1 for the applicable deficient study area intersections. These fees are collected with the proceeds solely used as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected population increases.

TABLE 8-1: PROJECT FAIR SHARE CALCULATIONS

#	Intersection		Existing (2024)	Project	EAPC (2026)	Total New Traffic	Project % of New Traffic[1]
1	I-215 SB Ramps & Ethanac Rd.						
		AM:	2,612	24	5,974	3,362	**0.7%**
		PM:	2,684	26	6,627	3,943	0.7%
2	I-215 NB Ramps & Ethanac Rd.						
		AM:	2,049	41	4,814	2,765	**1.5%**
		PM:	2,427	50	5,812	3,385	1.5%
3	Encanto Dr. & Ethanac Rd.						
		AM:	1,538	42	3,220	1,682	**2.5%**
		PM:	1,780	49	3,921	2,141	2.3%
4	Trumble Rd. & Ethanac Rd.						
		AM:	1,580	42	3,728	2,148	**2.0%**
		PM:	1,611	49	4,566	2,955	1.7%
5	Sherman Rd. & Ethanac Rd.						
		AM:	1,250	51	3,543	2,293	**2.2%**
		PM:	1,382	57	4,539	3,157	1.8%

[1] **BOLD =** Highest fair share percentage is highlighted.

9 REFERENCES

1. **City of Menifee.** *LOS Traffic Study Guidelines.* Menifee : s.n., October 2020.
2. **Institute of Transportation Engineers.** *Trip Generation Manual.* 11th Edition. 2021.
3. **VRPA Technologies, Inc. for Riverside County Transportation Commission.** *Riverside County Long Range Transportation Study.* County of Riverside : VRPA Technologies, Inc., December 2019.
4. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 7th Edition. s.l. : National Academy of Sciences, 2022.
5. **Caltrans.** *California Manual on Uniform Traffic Control Devices (MUTCD).* 2023.
6. **County of Riverside Transportation Department.** *Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled.* County of Riverside : s.n., December 2020.
7. **Circulation Element C-1: Roadway System. *The City of Menifee, California.* [Online] [Cited: May 30, 2014.] https://www.cityofmenifee.us/865/C-1-Roadway-System.**
8. **City of Perris. *General Plan Circulation Element.* City of Perris : s.n., August 26, 2008.**
9. **Western Riverside Council of Governments. *TUMF Nexus Study, 2016 Program Update.* July 2017.**

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APPENDIX 1.1: TRAFFIC STUDY SCOPING AGREEMENT

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MEMORANDUM

DATE: March 13, 2024
TO: Brett Hamilton, City of Menifee
FROM: Charlene So, Urban Crossroads
JOB NO: 15796-02 TA Scope

ETHANAC BUSINESS PARK (PLN23-0171, PLN23-0173, PLN23-0174, PLN23-0175) TRAFFIC STUDY SCOPING AGREEMENT (REVISION 1)

Urban Crossroads, Inc. is pleased to submit the following Traffic Study Scoping Agreement for the proposed Ethanac Business Park development (**Project**), which is located south of Ethanac Road, east of Trumble Road, west of Sherman Road, and north of McLaughlin Road in the City of Menifee (Assessor's Parcel Number (**APN**) 331-110-031, 024-026, 331-110-023, 038, 039). This letter describes the proposed Project trip generation, trip distribution, and analysis methodology, which have been used to establish the draft proposed Project study area and analysis locations. The following scope of work is based on the City's Level of Service (**LOS**) Traffic Study Guidelines (revised October 2020) (**City Guidelines**). The City's scoping form is included in Attachment A.

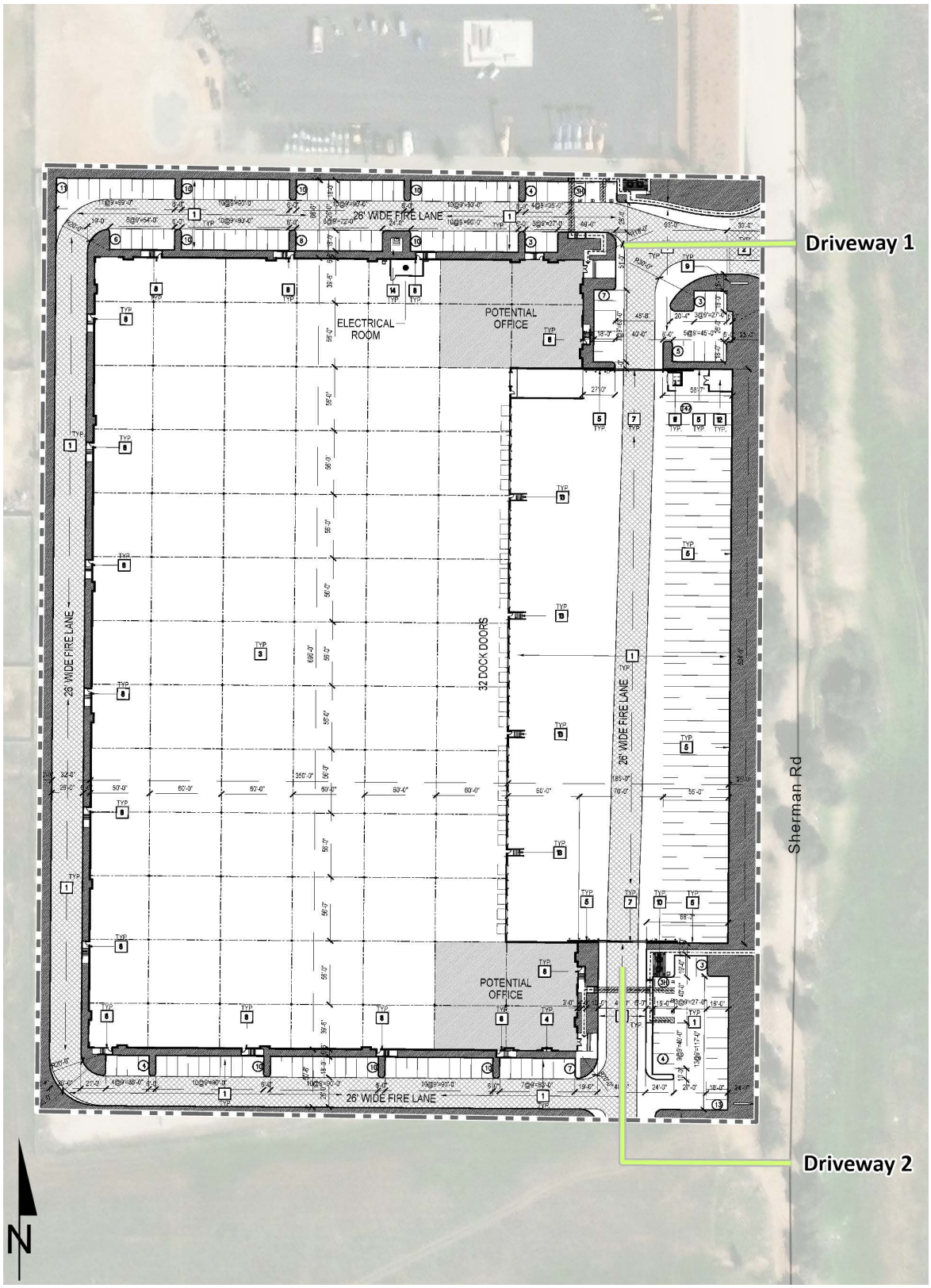
PROPOSED PROJECT

The Project includes the development of a 264,710 square foot warehouse building which includes 10,000 square feet of office support space on an 11.47-acre site (see Exhibit 1). It is our understanding the proposed Project Planning Application consists of a Plot Plan (PLN23-0171), General Plan Amendment (PLN23-0173) to change the land use from Heavy Industrial to Menifee North Specific Plan, Change of Zone (PLN23-0174) to change to zoning from Heavy Industrial to Menifee North Specific Plan, and a Specific Plan Amendment (PLN23-0175) to modify the boundary of the existing Menifee North Specific Plan to include the proposed Project and designating it as Planning Area 2 (Industrial).

The site is currently occupied by North County Sand & Gravel. They are currently operating from Monday through Friday from 8:00 AM to 4:00 PM. Driveway counts will be collected to determine the trips associated with the existing use and will be utilized as a credit against the Project trip generation.

The proposed Project is anticipated to have an opening year of 2026. Access is proposed along Sherman Avenue via two points of access (the southerly driveway being a shared driveway with the property immediately to the south). All driveways are assumed to allow for full access (no turn restrictions).

EXHIBIT 1: PRELIMINARY SITE PLAN



TRIP GENERATION

Trip generation represents the amount of traffic that is attracted and produced by a development and is based upon the specific land uses planned for a given project. In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (**ITE**) Trip Generation Manual (11th Edition, 2021) was used to calculate the trip generation. For purposes of this analysis, the following land use code and vehicle mix has been utilized for the Project:

- ITE Land Use Code 150 (Warehousing) has been used to derive site specific trip generation estimates for up to 264,710 square feet. A warehouse is primarily devoted to the storage of materials but may also include office and maintenance areas. The vehicle mix has been obtained from the ITE's Trip Generation Manual and the truck percentages were further broken down by axle type per the following South Coast Air Quality Management District (**SCAQMD**) recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.

The Business Park land use category (ITE Land Use Code 770) was considered however, this category describes the rate is applicable to projects that include a group of flex-type, one-to-two story buildings served by a common roadway system, includes a variety of uses from retail, office, and wholesale. Since the buildings are typically served by a ground-level garage door (roll-up), ITE does not provide a truck rate/percentage for this land use category. Based on a review of the proposed Project site plan, the Warehousing land use category was selected based on the proposed square footage and building layout, which includes dock-high doors, and to ensure the Project trip generation accounts for heavy trucks that are not typically associated with a Business Park use.

As noted in Table 1, refinements to the raw trip generation estimates have been made to provide a more detailed breakdown of trips between passenger cars and trucks. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks.

TABLE 1: TRIP GENERATION RATES

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicle Trip Generation Rates									
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars (AM=88.2%, PM=83.3%, Daily=64.9%)			0.120	0.030	0.150	0.034	0.116	0.150	1.110
2-Axle Trucks (AM=1.97%, PM=2.79%, Daily=5.86%)			0.002	0.001	0.003	0.003	0.002	0.005	0.100
3-Axle Trucks (AM=2.44%, PM=3.46%, Daily=7.27%)			0.002	0.002	0.004	0.003	0.003	0.006	0.124
4+-Axle Trucks (AM=7.39%, PM=10.45%, Daily=21.97%)			0.007	0.006	0.013	0.010	0.009	0.019	0.376
Passenger Car Equivalent (PCE) Trip Generation Rates									
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars			0.120	0.030	0.150	0.034	0.116	0.150	1.110
2-Axle Trucks (PCE = 1.5)			0.003	0.002	0.005	0.005	0.003	0.008	0.150
3-Axle Trucks (PCE = 2.0)			0.004	0.004	0.008	0.006	0.006	0.012	0.248
4+-Axle Trucks (PCE = 3.0)			0.021	0.017	0.038	0.030	0.026	0.056	1.127

[1] Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] TSF = thousand square feet

[3] Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type.
Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks.

The Project is estimated to generate a total of 456 two-way trips per day on a typical weekday with approximately 46 AM peak hour trips and 49 PM peak hour trips as shown in Table 2 (actual vehicles).

TABLE 2: PROJECT TRIP GENERATION SUMMARY

			AM Peak Hour			PM Peak Hour			
Land Use	Quantity	Units[1]	In	Out	Total	In	Out	Total	Daily
Actual Vehicles:									
Warehousing	264.710	TSF							
Passenger Cars:			32	8	40	9	31	40	294
2-axle Trucks:			1	0	1	1	1	2	28
3-axle Trucks:			1	1	2	1	1	2	34
4+-axle Trucks:			2	1	3	3	2	5	100
Total Truck Trips (Actual Vehicles):			4	2	6	5	4	9	162
Total Trips (Actual Vehicles)[2]			**36**	**10**	**46**	**14**	**35**	**49**	**456**
Passenger Car Equivalent (PCE):									
Warehousing	264.710	TSF							
Passenger Cars:			32	8	40	9	31	40	294
2-axle Trucks:			1	1	2	1	1	2	40
3-axle Trucks:			1	1	2	2	2	4	66
4+-axle Trucks:			6	4	10	8	7	15	298
Total Truck Trips (PCE):			8	6	14	11	10	21	404
Total Trips (PCE)[2]			**40**	**14**	**54**	**20**	**41**	**61**	**698**

[1] TSF = thousand square feet

[2] Total Trips = Passenger Cars + Truck Trips.

For the purposes of the operations analysis, the Passenger Car Equivalent (**PCE**)-based trip generation shown in Table 2 will be utilized. PCE factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. The PCE factors are consistent with the recommended PCE factors in City's guidelines. The Project is anticipated to generate a total of 698 two-way PCE trips per day on a typical weekday with approximately 54 PCE AM peak hour trips and 61 PCE PM peak hour trips.

As noted previously, the site is currently occupied by an existing operational business. Driveway counts will be collected over 3-days and averaged to identify the existing trip generation for the site. The existing trip generation will be applied as a credit to the proposed Project as part of the Traffic Study since the existing trips will be captured as part of the study area intersection counts used for baseline traffic conditions.

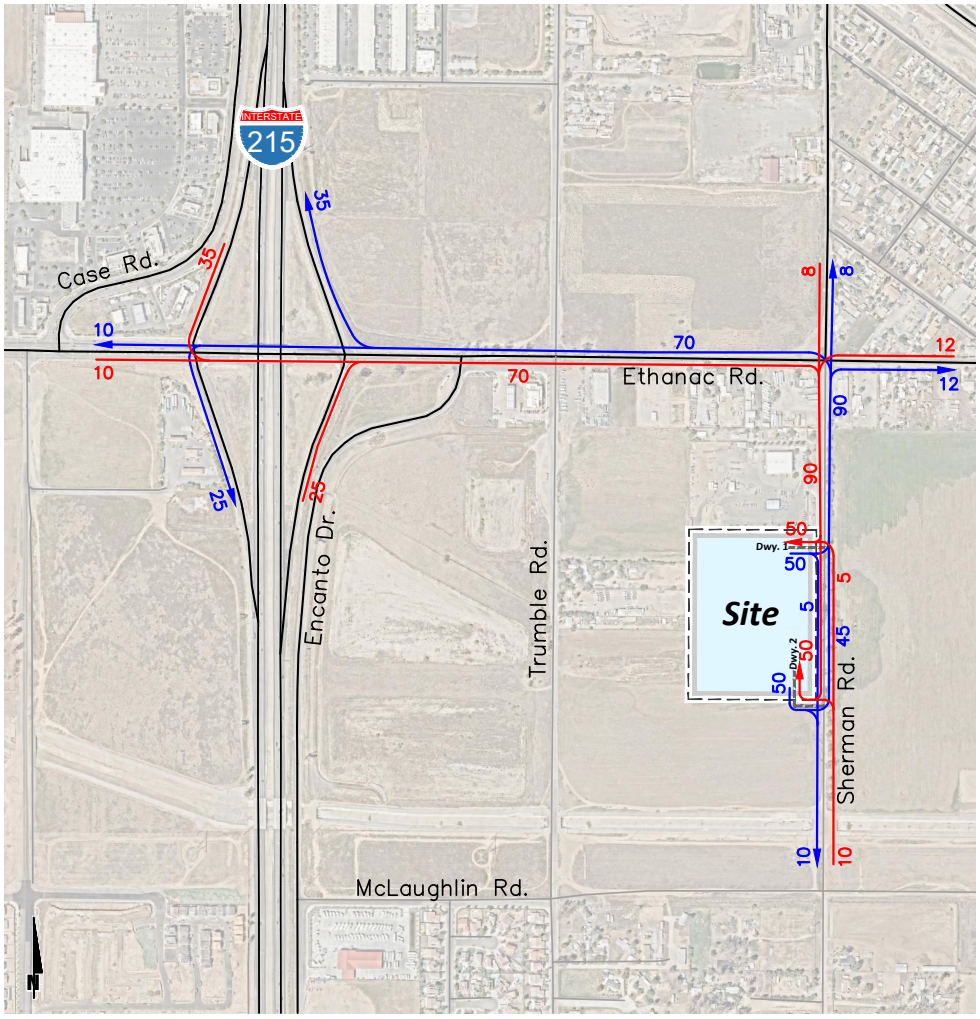
TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project

traffic would distribute. The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding land uses, and the proximity to the regional freeway system.

The project trip distribution patterns for both passenger cars and trucks are consistent with those evaluated as part of the Menifee Commerce Center Project Traffic Impact Analysis (prepared by Albert A. Webb Associates and dated August 2021). Passenger car distribution patterns are based on existing and planned land uses and roadway infrastructure in the area. Truck distribution patterns take into consideration City truck routes, proximity to the freeway system, and the Project Applicant's input on percentage of traffic oriented to the Port of Long Beach or other destination. The truck and passenger car trip distributions are illustrated on Exhibits 2 and 3, respectively.

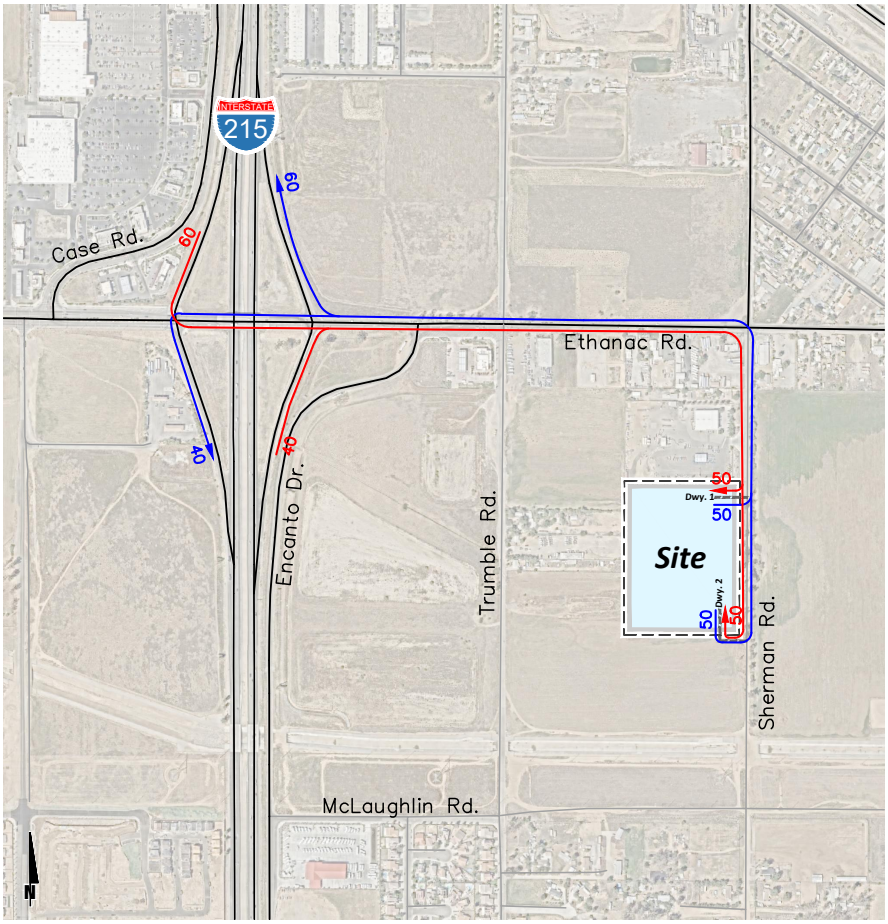
EXHIBIT 2: PROJECT (PASSENGER CARS) TRIP DISTRIBUTION



LEGEND:

10 = *Car Percent To/From Project*
= *Inbound*
= *Outbound*

EXHIBIT 3: PROJECT (TRUCKS) TRIP DISTRIBUTION



LEGEND:

10 = *Truck Percent To/From Project*
= *Inbound*
= *Outbound*

ANALYSIS SCENARIOS

Consistent with the City's Guidelines, intersection analysis will be provided for the following scenarios:

1. Existing (2024) Conditions
2. Existing plus Project (**E+P**) Conditions
3. Existing plus Ambient Growth plus Cumulatives (**EAC**) (2026) Conditions
4. Existing plus Ambient Growth plus Project plus Cumulatives (**EAPC**) (2026) Conditions
5. Horizon Year (2045) Without Project – to be based on post-processed Riverside County Transportation Model (**RIVCOM**) model data
6. Horizon Year (2045) With Project

All study area intersections will be evaluated using the Highway Capacity Manual (**HCM**) 7th Edition analysis methodology using the latest Synchro 12 analysis software package.

STUDY AREA INTERSECTIONS

Based on the Project's anticipated travel patterns and trip generation characteristics (where the Project could contribute 50 or more peak hour trips) or added at the request of City Staff, the following study area intersection locations shown on Exhibit 4 and listed below were selected for analysis:

EXHIBIT 4: STUDY AREA

LEGEND:

(0) = *Existing Intersection Analysis Location*

0 = *Future Intersection Analysis Location*

ID	Intersection	Jurisdiction
1	I-215 SB Ramps & Ethanac Rd.	Caltrans, City of Perris
2	I-215 NB Ramps & Ethanac Rd.	Caltrans, City of Perris
3	Encanto Dr. & Ethanac Rd.	City of Perris
4	Trumble Rd. & Ethanac Rd.	City of Menifee, City of Perris
5	Sherman Rd. & Ethanac Rd.	City of Menifee, City of Perris
6	Sherman Rd. & Driveway 1	City of Menifee
7	Sherman Rd. & Driveway 2	City of Menifee

The following roadway segments are proposed for evaluation:

#	Roadway	Segment Limits
1	Ethanac Rd.	I-215 Freeway to Encanto Dr.
2	Ethanac Rd.	Encanto Dr. to Trumble Rd.
3	Ethanac Rd.	Trumble Rd. to Sherman Rd.
4	Sherman Rd.	South of Ethanac Rd.

EXISTING COUNT DATA

New traffic counts will be conducted when local schools are in session and operating on normal bell schedules after the City's approval of the scoping agreement and analysis assumptions. No additional adjustments are proposed for the purpose of establishing the existing baseline conditions.

LEVEL OF SERVICE (LOS) CRITERIA

Per Policy C-1.2 of the City of Menifee General Plan, the following LOS will be utilized for study area intersections located within the City: Require development to mitigate its traffic impacts and achieve a peak hour Level of Service (**LOS**) D or better at intersections, except at constrained intersections at close proximity to the I-215 where LOS E may be permitted.

GENERAL PLAN CONSISTENCY REQUIREMENTS

Project-related impacts shall be clearly identified as direct or cumulative in the Traffic Study report. Only feasible improvements should be recommended in the Traffic Study report. Consideration should be made for existing right-of-way, availability of receiving lanes for additional through or turn lanes, environmental constraints, utility conflicts, and economically feasible improvement costs. Analysis of the recommended improvements shall be provided to demonstrate the proposed improvement will reduce the project impact to LOS to meet LOS standards.

All studies that propose increasing the number of travel lanes on a roadway or intersections to improve LOS conditions, either beyond existing conditions or for General Plan conditions beyond what is planned for that segment shall clearly identify the impacts associated with such a change. Exhibits and preliminary cost estimates must be provided to show the feasibility of the improvement.

The Traffic Study shall identify whether or not the recommended improvements to achieve LOS standards are within the scope of a funding mechanism. The funding mechanism identified shall also include the availability of the funds and anticipated construction dates (if available). A fair share contribution toward the identified funding mechanism shall be calculated in order to reduce identified cumulative project impacts.

LOS improvements may also include connectivity improvements for bicycles and pedestrians. Improvements along the project frontage shall include pedestrian and bicycle facilities in

compliance with the goals and policies established in the City's General Plan and mandated through the Complete Streets Act of 2008. The project should clearly identify pedestrian and bicycle facilities within the community that connect the development to existing sidewalk and bicycle facilities.

LOS improvements that are determined to be infeasible should be discussed in the Traffic Study and the factors resulting in the improvement being infeasible should be identified.

AMBIENT GROWTH

Consistent with other studies performed in the area, an ambient growth rate of 2.0% per year is proposed for the study area intersections to approximate background traffic growth not identified by nearby cumulative development projects. The rate will be compounded over a 2-year period (i.e., $1.02^{2 \text{ years}} = 1.0404$ or 4.04% for 2026).

FAIR SHARE CALCULATION METHODOLOGY

Improvements found to be included in the City of Menifee's Development Impact Fee (**DIF**) program and Western Riverside Council of Governments (**WRCOG**) Transportation Uniform Mitigation Fee (**TUMF**), will be identified as such. For improvements that do not appear to be in either of the pre-existing fee programs, a fair share financial contribution based on the Project's fair share impact may be imposed in order to mitigate the Project's share of impacts in lieu of construction. The Project's fair share cost of improvements would be determined based on the following equation, which is the ratio of Project traffic to new traffic, where new traffic is total future traffic less existing baseline traffic:

Project Fair Share % = Project Traffic / (2045 With Project Total Traffic – Existing Traffic)

CUMULATIVE PROJECTS

It is requested that the City provide the intensity information for Project M28. A preliminary list of cumulative projects is shown on Table 3 and locations are illustrated on Exhibit 5. A list of cumulative projects will also be requested from the City of Perris.

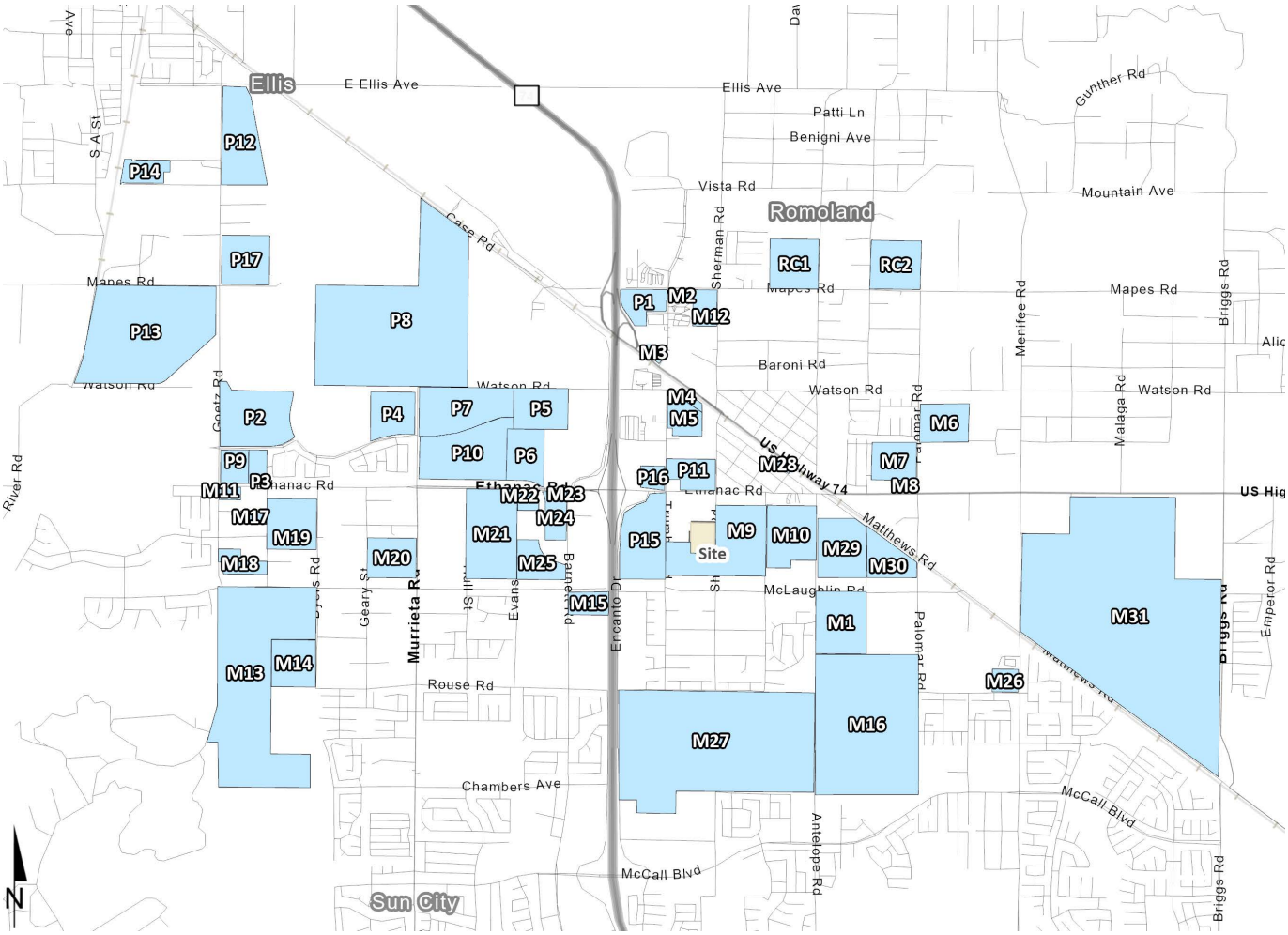
TABLE 3: SUMMARY OF CUMULATIVE DEVELOPMENT PROJECTS

No.	Project Name / Case Number	Jurisdiction	Land Use	Quantity	Units[1]
P1	Mapes and Trumble Industrial	Perris	High-Cube Fulfillment Center Warehouse	396.000	TSF
	Green Valley Specific Plan (GVSP)	Perris			
P2	GVSP - Track 37262		Single Family Housing	191	DU
P3	GVSP - Track 37816		Multifamily Housing	97	DU
P4	GVSP - Track 37722 (25% Complete)		Single Family Housing	116	DU
P5	GVSP - Track 37817		Multifamily Housing	227	DU
P6	GVSP - Track 37818		Multifamily Housing	374	DU
P7	GVSP - Track 37223		Single Family Housing	235	DU
P8	GVSP - Phase 2 (North)		Multifamily Housing	1,183	DU
			Single Family Housing	462	DU
			Commercial	5.9	AC
			School	15.0	AC
P9	GVSP - Phase 2 (South)		Multifamily Housing	111	DU
			Commercial	5.4	AC
P10	GVSP (PA 46, 47, & 48)		Single Family Housing	483	DU
P11	Hillwood Ethanac	Perris	High-Cube Transload Warehouse	362.348	TSF
			High-Cube Cold Storage Warehouse	50.000	TSF
P12	Perris Airport Center Industrial	Perris	High-Cube Fulfillment Center Warehouse	795.109	TSF
			General Light Industrial	71.961	TSF
			Truck/Trailer Lot	323	Spaces
P13	Perris Logistics Center South	Perris	High-Cube Warehouse	3,448.734	TSF
P14	Case Road Mixed-Use	Perris	Self-Storage Facility	211.900	TSF
			Recreational Vehicle (RV) Storage	215	Spaces
			High-Cube Fulfillment Center (Sort)	498.000	TSF
			Hotel	128	RM
			High Turnover (Sit-Down) Restaurant	27.000	TSF
			Fast-Food Restaurant with Drive-Thru	5.000	TSF
P15	Motte Towne Center (DPR06-0337)	Perris	Commercial	286.000	TSF
			Free-Standing Discount Store	221.000	TSF
P16	Perris Travel Center (P22-05002)	Perris	Gas Station and Truck Stop	23	VFP
P17	Airport Industrial	Perris	Industrial	650.000	TSF
RC1	TTM/TR37358	County	Residential lots	154	DU
RC2	TR31687	County	Single Family Residential	65	DU

No.	Project Name / Case Number	Jurisdiction	Land Use	Quantity	Units[1]
M1	McLaughlin Warehouses (DEV2022-016)	Menifee	Warehouse	491.467	TSF
M2	United Carports Warehouse (DEV2022-009)	Menifee	Warehouse	58.643	TSF
M3	Trumble Retail (CUP2016-290)	Menifee	Hotel	108	RM
			Quality Restaurant	5.500	TSF
			Fast-Food w/ Drive-Thru	3.000	TSF
			Gas Station	12	VFP
M4	Paragon Framing (CUP2018-126)	Menifee	Office/Storage	10.454	TSF
M5	Trumble/Watson Warehouse (DEV2022-019)	Menifee	Warehouse	327.631	TSF
M6	TR 38132 & 38133 (SPA DEV2021-005)	Menifee	Single Family Residential	322	DU
M7	MR-27 LLC Rancon (TTM 34118)	Menifee	Multifamily (Low-Rise)	85	DU
M8	Motte Country Plaza (PP2018-300)	Menifee	Gas Station	12	VFP
M9	Menifee Commerce Center (PP2019-005)	Menifee	Warehouse	1,640.130	TSF
M10	Motte Business Center	Menifee	Warehouse	1,138.638	TSF
M11	Goetz/Ethanac Commercial (PP PLN21-0319)	Menifee	Gas Station w/ C-Store	7.250	TSF
			Car Wash	2.790	TSF
			Retail	7.040	TSF
M12	Mapes and Sherman Warehouse	Menifee	High-Cube Fulfillment Center Warehouse	277.578	TSF
M13	Cimarron Ridge	Menifee	Residential	756	DU
M14	TTM 38128 (DEV2022-001)	Menifee	Single Family Residential	96	DU
M15	McLaughlin Village	Menifee	Condominiums	126	DU
M16	Underwood	Menifee	Residential	543	DU
M17	Wheat Warehouse	Menifee	Warehouse Distribution Center	87.676	TSF
M18	Corsica Business Park (DEV2022-010)	Menifee	Business Park	234.921	TSF
M19	CADO Warehouse	Menifee	Warehouse	700.037	TSF
M20	Ares Warehouse on Murrieta (DEV2022-017)	Menifee	Warehouse	517.720	TSF
M21	Northern Gateway Commerce Center II (PP PLN21-0281)	Menifee	High-Cube Warehouse	1,286.607	TSF
M22	Ethanac/Evans Warehouse (DEV2022-018)	Menifee	Warehouse	137.896	TSF
M23	Ethanac Square (MJMOD PLN21-0104)	Menifee	Gas Station	3.800	TSF
M24	Ethanac/Barnett Warehouse (PP PLN21-0290)	Menifee	Warehouse	251.133	TSF
M25	Menifee Logistics (PLN23-0040)	Menifee	Warehouse	411.829	TSF
M26	LDW TTM 38346	Menifee	Condominiums	162	DU
M27	Legado SP	Menifee	Single Family Detached Residential	1,061	DU
			Shopping Center	225.000	TSF
			Sports Park	11.23	AC
			Recreational Community Center	10.000	TSF
M28	Self-Storage Facility	Menifee	Self-Storage Facility		
M29	Nova Battery Project (DEV2022-015)	Menifee	Battery Energy Storage System	44.220	AC
M30	Double Butte (DEV2022-026)	Menifee	Battery Energy Storage System	27.000	AC
M31	Menifee Valley Specific Plan	Menifee	Single Family Housing	1,328	DU
			Multifamily (Low-Rise)	390	DU
			Elementary School	750	STU
			Industrial Uses	5,510.000	TSF
			Commercial	560.000	TSF
			Public Facilities	120.000	TSF
			Sports Park w/ Aquatic Sports	54.000	TSF

[1] TSF = Thousand Square Feet; DU = Dwelling Units; VSP = Vehicle Fueling Positions; STU = Students; AC = Acres

EXHIBIT 5: CUMULATIVE DEVELOPMENT PROJECT LOCATION MAP



SPECIAL ISSUES

The following special issues will also be addressed:

- *Site Access Evaluation:* The turn pocket lengths will be determined through peak hour traffic simulations developed using Synchro and SimTraffic software in an effort to identify the required storage capacity for turn lanes at each Project driveway. Specifically, the queuing analysis will be conducted in order to determine the necessary turn pocket storage lengths needed to accommodate peak hour queues at the Project Driveways along Sherman Road.
- *Traffic Signal Warrant:* A traffic signal warrant analysis will be prepared for all analysis scenarios for the unsignalized, full access study area intersections. Peak hour volume-based traffic signal warrants will be run for existing intersections while planning level, ADT-based traffic signal warrants will be evaluated for future intersections. The posted speed limit will be used to determine whether the urban or rural warrants are utilized.
- *Truck Access Assessment:* A truck turning template will be overlaid on the site plan for both driveways along Sherman Road and the intersection of Sherman Road at Ethanac Road to determine the appropriate curb radii and verify that trucks will have sufficient space to execute turning maneuvers.
- *Vehicle Miles Traveled*: VMT will be addressed under separate cover. A VMT memo will be prepared summarizing the screening assessment.

If you have any questions or comments, I can be reached at cso@urbanxroads.com.

ATTACHMENT A: CITY SCOPING FORM

ATTACHMENT A

SCOPING AGREEMENT FOR TRAFFIC STUDY

This letter acknowledges the City Menifee Engineering Department requirements for the traffic study of the following project. The analysis must follow the latest City Traffic Study Guidelines dated October 2020

Case No. PLN23-0171
Related Cases -
SP No. Amendment to Specific Plan No. 260 (PLN23-0175)
EIR No.
GPA No. PLN23-0173
CZ No. PLN23-0174
Project Name: Ethanac Business Park
Project Location: 26227 Sherman Rd.
Project Description: 264,710 square foot warehouse

	Consultant	Developer
Name:	Urban Crossroads - Charlene So	Core5 Industrial Partners - Jon Kelly
Address:	1133 Camelback St. #8329 Newport Beach, CA 92658	300 Spectrum Center Dr. Suite 880 Irvine, CA 92618
Telephone:	949-861-0177	949-467-3290

A. Trip Generation Source: ITE *Trip Generation Manual,* 11th Edition (2021)

Existing Land Use	Heavy Industrial & Specific Plan	Proposed Land Use	Specific Plan
Existing Zoning	Heavy Industrial & Specific Plan	Proposed Zoning	Specific Plan (PA 2 - Industrial)

Total Daily Trips

	In	Out	Total	(PCE)
AM Trips	40	14	54	
PM Trips	20	41	61	

Internal Trip Allowance ☐ Yes ☒ No (% Trip Discount)

Pass-By Trip Allowance ☐ Yes ☒ No (% Trip Discount)

(Attach additional sheet if this is a multi-use site with a breakdown of trips generated)

B. Trip Geographic Distribution: N % S % E % W %
(See attached exhibit for detailed assignment) Varies - see attached memo

C. Background Traffic

Project Completion Year: 2026 Annual Ambient Growth Rate: 2.0 %
Other area projects to be included: Updated projects to be provided by the City

Please contact the Engineering Department or use the most recently provided data

Model/Forecast methodology if required RIVCOM

D. Horizon Year Analysis: Does this project require a Horizon Year Analysis? [X] Yes [ ] No

E. Study intersections: (NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)

1. I-215 SB Ramps & Ethanac Rd.
2. I-215 NB Ramps & Ethanac Rd.
3. Encanto Dr. & Ethanac Rd.
4. Trumble Rd. & Ethanac Rd.
5. Sherman Rd. & Ethanac Rd.
6. Sherman Rd. & Driveway 1
7. Sherman Rd. & Driveway 2
8. _____

F. Study Roadway Segments:

1. Ethanac Rd., I-215 Freeway to Encanto Dr.
2. Ethanac Rd., Encanto Dr. to Trumble Rd.
3. Ethanac Rd., west of Sherman Rd.
4. Sherman Rd., south of Ethanac Rd.
5.
6.
7.
8. _____

G. Other Jurisdictional Impacts

Is this project within any other Agency's Sphere of Influence or one-mile radius of boundaries? [X] Y [ ]

es

No

If so, name of Jurisdiction: City of Perris; Caltrans (I-215 Freeway, SR-74)

H. Site Plan (please attach a legible 11'X17' copy) See attached architectural plans

I. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline) (To be filled out by Engineering Department)

See scoping memo.

Recommended by:

Charlene So

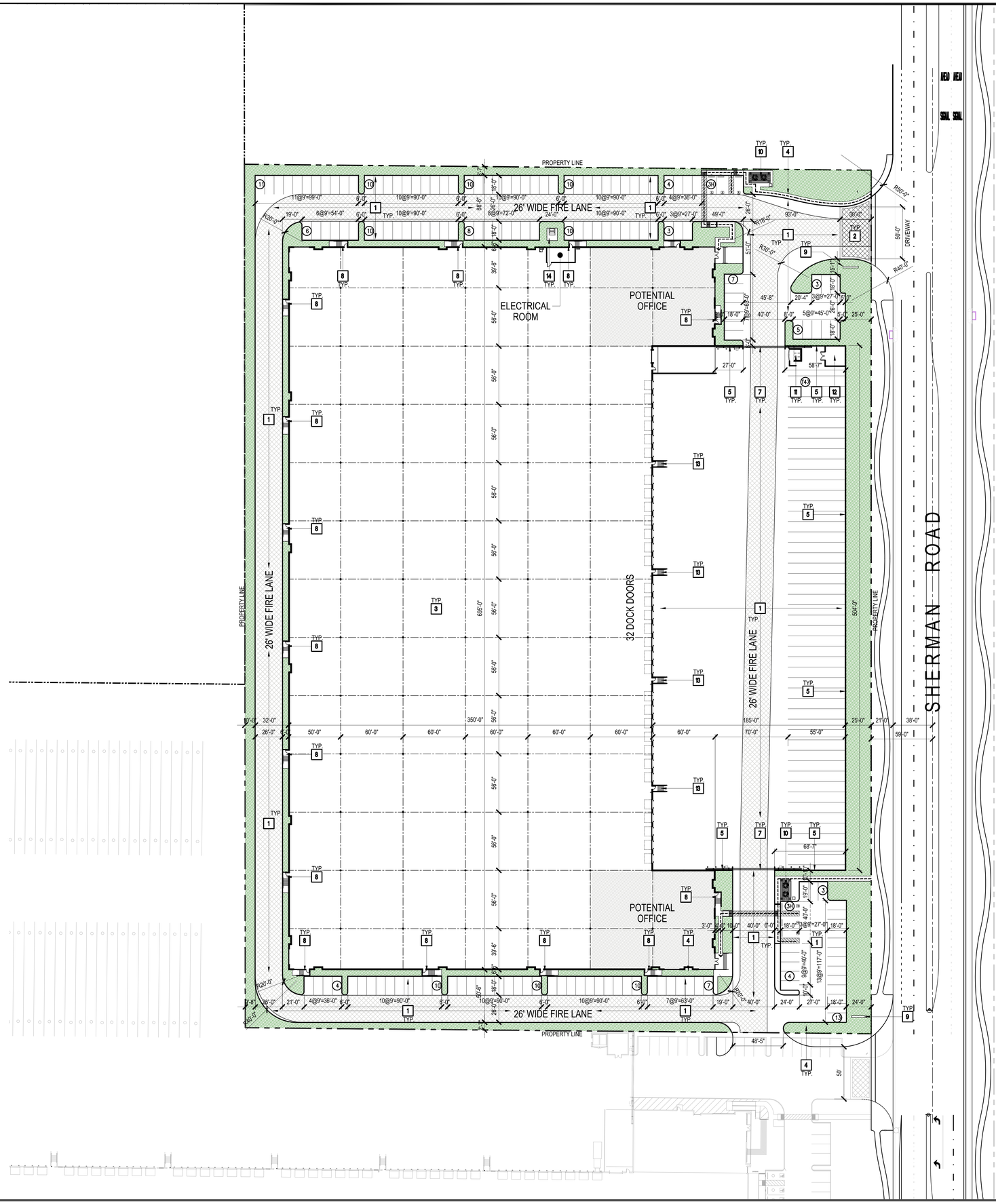
Consultant's Representative Charlene So — Date 1/31/2024

Scoping Agreement Submitted on — Date 1/31/2024

Scoping Agreement Resubmitted on — Date 03/13/2024

Approved Scoping Agreement:

City of Menifee — Date



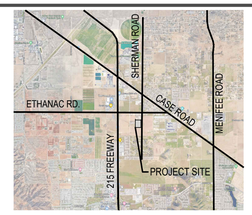
APPLICANT/OWNER

CORE5 INDUSTRIAL PARTNERS
300 SPECTRUM CENTER DRIVE SUITE 880
IRVINE CA 92618
949-467-3290
JKELLY@C5IP.COM

PROJECT ADDRESS / APN

TBD, BETWEEN TRUMBLE ROAD AND SHERMAN,
SOUTH OF ETHANAC ROAD MENIFEE, CA
APN: 331-110-031, 024-026, 331-110-023, 038, 039

VICINITY MAP



PROJECT DESCRIPTION

NEW CONSTRUCTION FOR (1) SPECULATIVE 264,710 S.F. TYPE III-B, S-1/B OCCUPANCY WAREHOUSE WITH ESFR FIRE SPRINKLER SYSTEM. PROPOSED SITE IMPROVEMENTS CONSIST OF CONCRETE TILT SCREEN WALL, TRASH ENCLOSURE, PUMP HOUSE, SITE LIGHTING STANDARDS, AND HARDSCAPE/LANDSCAPE IMPROVEMENTS PER CITY STANDARDS.

PROJECT DATA

Menifee

		BLDG
SITE AREA		499,729 SF
		11.47 AC
BUILDING AREA		
1ST FLOOR	WAREHOUSE	249,710 SF
	OFFICE	5,000 SF
1ST TOTAL		**254,710** SF
2ND FLOOR	WAREHOUSE	5,000 SF
	OFFICE	5,000 SF
TOTAL		**264,710** SF
PROJECT FACT		
Zoning		SP 260
FAR		0.53
CLEAR HEIGHT		36'
BLDG Height		42'
PARKING REQ.		
AUTO PARKING		
SIZE	9'x18'	
OFFICE	1/250 SF	40
WAREHOUSE	1/2000 sf	128
TOTAL		**168**
PARKING PROVIDED		
AUTO PARKING		
STANDARD	9'X18'	**168**
TRAILER	10'x55'	**47**
ZONING		
ZONING		
SET BACK		
	FRONT	25'
	SIDE	5'
	REAR	0'
LANDSCAPE		
	PROVIDED (11.6%)	**58,864** SF

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINES UNLESS NOTED OTHERWISE.
2. ENTIRE PROJECT SHALL BE PERMANENTLY MAINTAINED WITH A SMART AUTOMATIC IRRIGATION SYSTEM.
3. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SITE DRAINAGE, TOPOGRAPHY AND UTILITIES.
4. FOR PAVING SECTIONS, CONCRETE CURBS, SWALES AND GUTTERS SEE CIVIL DRAWINGS.
5. PROPERTY LINE ARE REFERENCE ONLY. REFER TO CIVIL DRAWINGS FOR HORIZONTAL CONTROL.
6. LANDSCAPE AREAS SHALL BE DELINEATED WITH A MIN. 6" CONCRETE CURB.

KEYNOTES

1. SITE PAVING WITH HEAVY BROOM FINISH. SEE CIVIL FOR PAVEMENT THICKNESS.
2. DECORATIVE PAVEMENT AT ENTRY - COLORED CONCRETE W/ SAW CUT PATTERN.
3. PRIMARY BUILDING.
4. PEDESTRIAN CONCRETE WALKWAY WITH MEDIUM BROOM FINISH.
5. CONCRETE SCREEN WALL 14'H FT.
6. WROUGHT IRON FENCE 8'H FT.
7. 8'H BLACK PAINTED VEHICULAR ROLLING GATE WITH KNOX PAD LOCK. MANUALLY OPERATED. PROVIDE CONDUITS FOR FUTURE OPERATOR.
8. 5'-6" X 6' X 4" THICK CONCRETE LANDING PAD AT ALL EXTERIOR MANDOORS WITH MEDIUM BROOM FINISH.
9. FUTURE MONUMENT SIGN WITH ELEC. CONDUITS.
10. EMPLOYEE BREAK AREA, TENANT FURNISHED UNLESS NOTED OTHERWISE.
11. TRASH ENCLOSURE.
12. PUMP HOUSE.
13. EXTERIOR CONCRETE STAIR.
14. APPROXIMATE LOCATION OF ELEC. TRANSFORMER WITH BOLLARD PROTECTION AND LANDSCAPE SCREENING.
15. NOT USED.
16. SHORT TERM - BICYCLE RACK 8% OF PARKING STALL.
17. DESIGNATED SMOKING AREA - 25' AWAY FROM ANY ENTRY.

LEGEND

- STANDARD PARKING STALL 9' X 18'
- CLEAN AIR, VANPOOL / EV 9' X18'
- ADA PARKING VAN 12' X 18' OR STANDARD 9' X 18' WITH 5' CLR AISLE
- PROPERTY LINE
- ACCESSIBLE PATH OF TRAVEL. MAX 5% SLOPE AND MAX 2% CROSS SLOPE WITH 48" MIN. CLEAR, UNLESS NOTED OTHERWISE WITH ADA ACCESSIBLE RAMP
- LANDSCAPE, SEE LANDSCAPE DRAWINGS

SKH

STEVE K HONG ARCHITECT
4590 MACARTHUR BLVD. SUITE 500
IRVINE CALIFORNIA 92660
PROJECT MANAGER: STEVE HONG
714 - 822 - 1171, STEVE@SKHARCHITECT.COM

LICENSED ARCHITECT STEVE K. HONG NO. C-13577 REN 12-31-22 STATE OF CALIFORNIA

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CONSULTANTS

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909-941-7799
JOHNNY MURAD
JMURAD@HUITT-ZOLLARS.COM

LANDSCAPE ARCHITECT
RODARTE LANDSCAPE ARCHITECTURE INC.
740 13TH STREET SUITE 320
SAN DIEGO CA 92101
909-771-8171
LORENZO RODARTE
LORENZO@RODARTELANDARCH.COM

ETHANAC BUSINESS PARK BUILDING 1

TBD MENIFEE CA

CORE5 INDUSTRIAL PARTNERS
300 SPECTRUM CENTER DRIVE
SUITE 880 IRVINE CA 92618

No.	ISSUANCE	DATE

JOB No.
22-178

DRAWN STEVE HONG
CHECKED STEVE HONG

SHEET TITLE
ARCHITECTURAL
OVERALL SITE PLAN

SHEET NUMBER
DRC-A1.01

OVERALL SITE PLAN

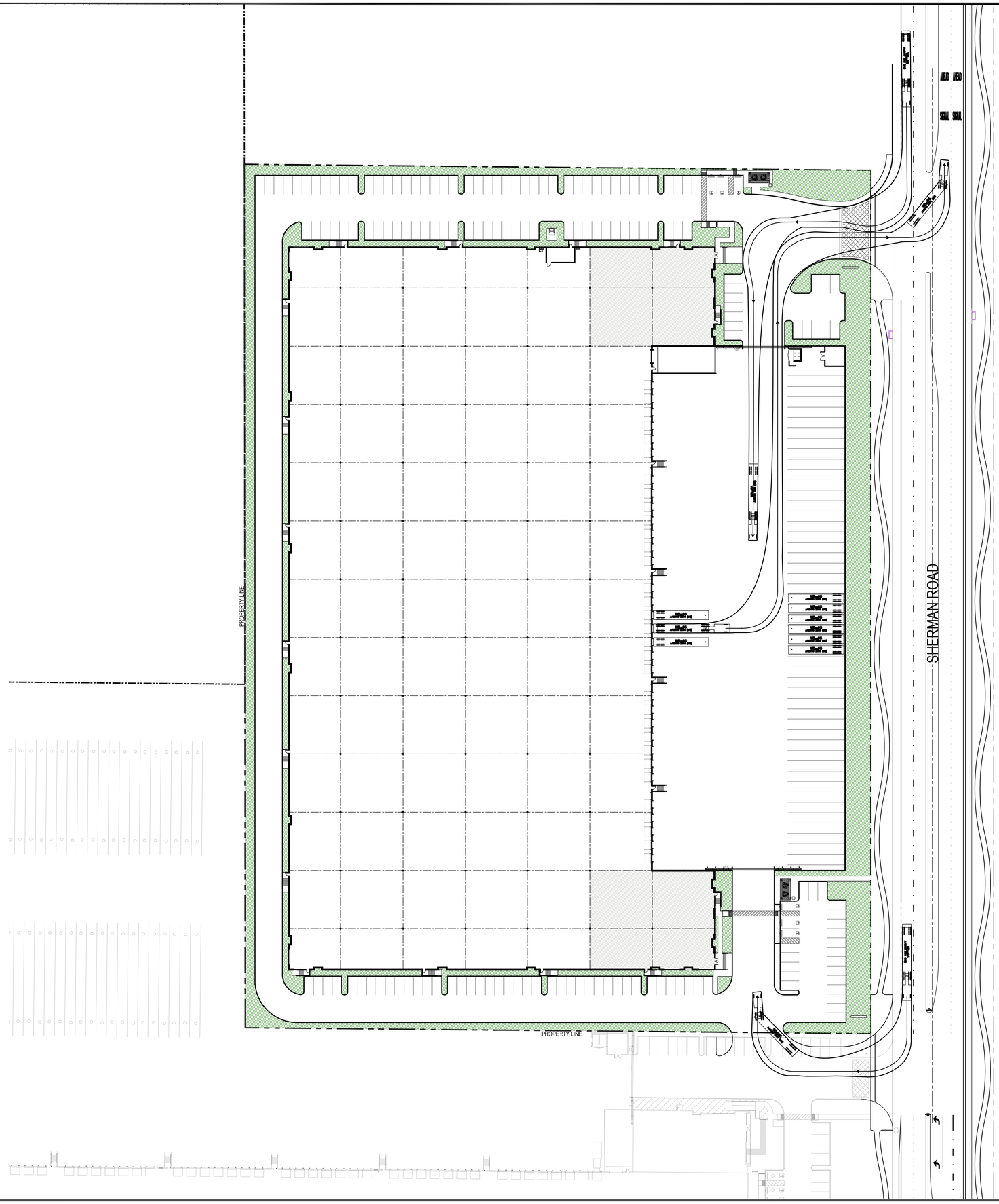
TRUE NORTH

SCALE 1" = 40'-0"

1

1.1-17

Plot Date: 9/7/2023 4:00:26 PM Last Save By: steve Login: Steve Hong L:\Projects\Core5\22-178 Core5 Menifee Sherman And Ethanac\03 - Design\04 - Entitlements And CD\DRC-A1.01.dwg



OVERALL SITE PLAN

1.1-18

TRUE NORTH

SCALE 1" = 40'-0"

1

SKH

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STEVE K. HONG
NO. C-33677
REN. 12-31-22
STATE OF CALIFORNIA

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909-941-7799
JOHNNY MURAD
JMURAD@HUITT-ZOLLARS.COM

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LORENZO@RODARTELANDARCH.COM

ETHANAC BUSINESS PARK BUILDING 1

TBD MENIFEE CA

CORE5 INDUSTRIAL PARTNERS

CORE5 INDUSTRIAL PARTNERS
300 SPECTRUM CENTER DRIVE
SUITE 880 IRVINE CA 92618

No.	ISSUANCE	DATE

JOB No.
22-178

DRAWN STEVE HONG
CHECKED STEVE HONG

SHEET TITLE
ARCHITECTURAL
TRUCK CIRCULATION PLAN

SHEET NUMBER
DRC-A1.03

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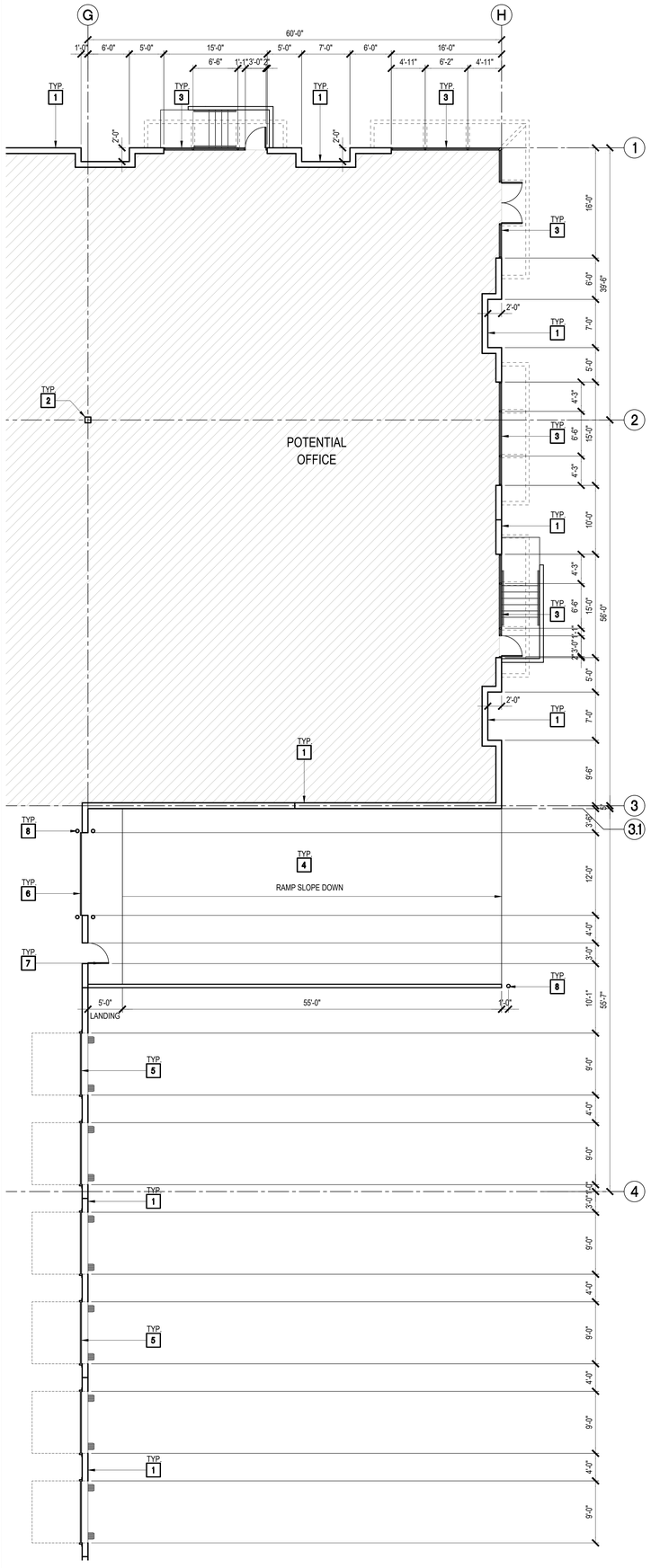

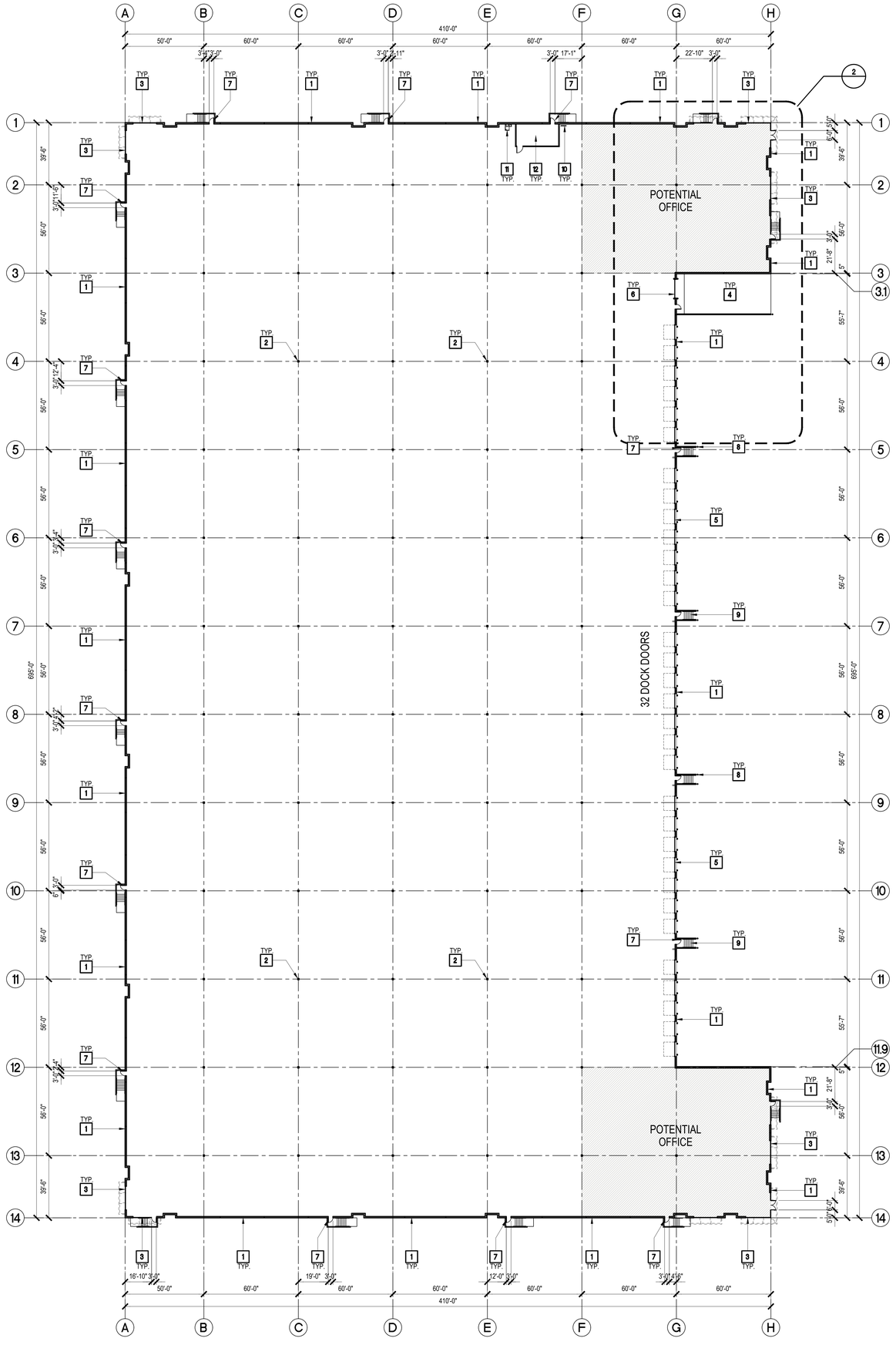

GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR SLAB ON GRADE FINISH FLOOR ELEVATION ANY DIRECTION OF SLOPE IF ANY.
2. SLOPE POUR STRIP ¼" TO EXTERIOR AT ALL MAN DOORS AND DOCK DOORS. SEE STRUCTURAL DRAWINGS FOR POUR STRIP LOCATIONS.
3. ALL DIMENSIONS ARE TO FACE OF CONCRETE PANEL WALL, GRID LINE OR FACE OF STUD UNLESS NOTED OTHERWISE.
4. REFER TO CIVIL DRAWINGS FOR POINT CONNECTION TO OFF-SITE UTILITIES AND CONTRACTOR TO VERIFY ACTUAL UTILITY LOCATIONS.
5. CONTRACTOR TO PROTECT AND KEEP FLOOR SLAB CLEAN. ALL EQUIPMENT TO BE DIAPERED INCLUDING CARS AND TRUCKS TO PREVENT OIL SPILLS.
6. CONCRETE SLAB TO HAVE STEEL FLOAT TROWEL BURNISHED FINISH.
7. ALL FLOOR SLAB NAIL OR BRACE FRAME HOLES SHALL BE FILLED WITH APPROVED 2 PART EPOXY COMPOUND TO MATCH CONCRETE COLOR.
8. PROVIDE MM-EP-90 AT CONTROL/EXPANSION JOINTS AT THE SPEEDBAY ONLY.

PAINT NOTES

1. INTERIOR CONCRETE WALL: SINGLE COAT OF ACRYLIC PAINT ON INTERIOR WALLS. SHERWIN WILLIAMS, "SNOWBOUND" SW 7004 - FLAT SHEEN.
2. ALL STRUCTURAL STEEL MEMBER INCLUDING COLUMNS, LEDGERS, JOISTS, GIRDERS SHALL RECEIVE LIGHT GRAY SHOP PRIMER. ANY FIELD WELDS SHALL BE TOUCHED UP TO MATCH SHOP PRIMER.
3. STRUCTURAL COLUMNS SHALL, SHALL RECEIVE A COAT OF OSHA YELLOW SAFETY WARNING COLOR, PAINT UP TO 12' ABOVE FINISH FLOOR.
4. ARCHITECTURAL COATINGS REQUIRE USE OF HVLP SPRAYING EQUIPMENT OR MINIMUM TRANSFER RATE OF AT LEAST 50% OR MANUAL APPLICATION TECHNIQUE.
5. PAINT SHALL BE OF "SUPER COMPLIANT" LOW VOC PER SCAQMD RULE 1113.

KEYNOTES

1. CONCRETE TILT UP PANEL.
2. STRUCTURAL STEEL BUILDING COLUMN
3. STOREFRONT SYSTEM AND GLAZING SEE ELEVATION FOR SPECIFICATION
4. CONCRETE RAMP WITH 42" H CONC. TILT UP GUARD WALL OR BUILDING WALL
5. 9'X10' X 24 GA OVER HEAD ROLL UP DOOR, COUNTER BALANCED WITH 24" X 8" VISION PANEL. STANDARD GRADE WITH WHITE FACTORY FINISH
6. 12'X14' X 24 GA OVER HEAD ROLL UP DOOR, COUNTER BALANCED WITH 24" X 6"VISION PANEL STANDARD GRADE WITH WHITE FACTORY FINISH.
7. 3'X7' HOLLOW METAL DOOR AND FRAME.
8. PROTECTIVE BOLLARD
9. CONCRETE STAIR
10. LONG TERM INTERIOR BICYCLE RACK
11. ROOF ACCESS LADDER
12. ELECTRICAL ROOM

ENLARGED FLOOR PLAN — TRUE NORTH — SCALE 1/8" = 1'-0" — 2

OVERALL FLOOR PLAN — TRUE NORTH — SCALE 1" = 30'-0" — 1

1.1-19

SKH

STEVE K HONG ARCHITECT
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IRVINE CALIFORNIA 92660
PROJECT MANAGER: STEVE HONG
714 - 822 - 1171, STEVE@SKHARCHITECT.COM

LICENSED ARCHITECT — STEVE K. HONG — NO. C-33677 REN. 12-31-24 — STATE OF CALIFORNIA

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ETHANAC BUSINESS PARK BUILDING 1

TBD MENIFEE CA

CORE5 INDUSTRIAL PARTNERS

CORE5 INDUSTRIAL PARTNERS
300 SPECTRUM CENTER DRIVE
SUITE 880 IRVINE CA 92618

No.	ISSUANCE	DATE

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22-178
DRAWN STEVE HONG
CHECKED STEVE HONG

SHEET TITLE
ARCHITECTURAL
OVERALL FLOOR PLAN

SHEET NUMBER
DRC-A2.01

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Jared Brawner

From: Jared Brawner
Sent: Monday, July 29, 2024 2:19 PM
To: Jared Brawner
Subject: RE: 15796 Ethanac Business Park Traffic Scope

From: Charlene So <cso@urbanxroads.com>
Sent: Wednesday, April 3, 2024 9:19 AM
To: Christopher Heron <cheron@cityofmenifee.us>; Brett Hamilton <bhamilton@cityofmenifee.us>; Cano, Kari <Kari.Cano@kimley-horn.com>
Cc: Kelly, Jon <JKelly@c5ip.com>; Aric Evatt <aevatt@urbanxroads.com>
Subject: RE: 15796 Ethanac Business Park Traffic Scope

Great, thank you!

Regards,

CHARLENE SO
(949) 861-0177 Mobile

From: Christopher Heron <cheron@cityofmenifee.us>
Sent: Wednesday, April 3, 2024 9:12 AM
To: Charlene So <cso@urbanxroads.com>; Brett Hamilton <bhamilton@cityofmenifee.us>; Cano, Kari <Kari.Cano@kimley-horn.com>
Cc: Kelly, Jon <JKelly@c5ip.com>; Aric Evatt <aevatt@urbanxroads.com>
Subject: RE: 15796 Ethanac Business Park Traffic Scope

Good Morning Charlene,

This addresses the city's comments. No further comments from Engineering.

Thank you,

Christopher Heron, EIT | Assistant Engineer
Engineering Department
City of Menifee | 29844 Haun Road | Menifee, CA 92586
Direct: (951) 723-3723 | City Hall: (951) 672-6777
cheron@cityofmenifee.us |

MENIFEE
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CITY OF INNOVATION
Building for the Future
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From: Charlene So <cso@urbanxroads.com>
Sent: Monday, April 1, 2024 12:08 PM
To: Christopher Heron <cheron@cityofmenifee.us>; Brett Hamilton <bhamilton@cityofmenifee.us>; Cano, Kari <Kari.Cano@kimley-horn.com>
Cc: Kelly, Jon <JKelly@c5ip.com>; Aric Evatt <aevatt@urbanxroads.com>
Subject: Re: 15796 Ethanac Business Park Traffic Scope

[CAUTION]: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Chris,

Following up on the status of the City's review of the scoping agreement. Please let me know if you have any questions. Thank you!

Regards,

CHARLENE SO, PE
(949) 861-0177 Mobile

On Mar 13, 2024, at 10:57 AM, Charlene So <cso@urbanxroads.com> wrote:

Hi Chris,

Apologies, I discussed this with Kari this morning and I've added a new paragraph on page 3 under the Trip Generation heading (paragraph after the first bullet). Let me know if this works for the City or if you have any questions. Thanks!

Updated Scoping Agreement: https://urbanxroads.egnyte.com/dl/w2YMQHK3vw

Regards,

CHARLENE SO
(949) 861-0177 Mobile

From: Christopher Heron <cheron@cityofmenifee.us>
Sent: Wednesday, March 13, 2024 7:40 AM
To: Brett Hamilton <bhamilton@cityofmenifee.us>; Charlene So <cso@urbanxroads.com>; Cano, Kari <Kari.Cano@kimley-horn.com>
Cc: Kelly, Jon <JKelly@C5IP.com>; Aric Evatt <aevatt@urbanxroads.com>
Subject: RE: 15796 Ethanac Business Park Traffic Scope

Good Morning,

I wanted to follow up on this. I am heading into our traffic meeting at 8 oclock.

Thank you,

Christopher Heron, EIT | Assistant Engineer
Engineering Department
City of Menifee | 29844 Haun Road | Menifee, CA 92586
Direct: (951) 723-3723 | City Hall: (951) 672-6777
cheron@cityofmenifee.us |

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From: Brett Hamilton <bhamilton@cityofmenifee.us>
Sent: Monday, March 11, 2024 2:06 PM
To: Charlene So <cso@urbanxroads.com>; Cano, Kari <Kari.Cano@kimley-horn.com>
Cc: Kelly, Jon <JKelly@C5IP.com>; Aric Evatt <aevatt@urbanxroads.com>; Christopher Heron <cheron@cityofmenifee.us>
Subject: RE: 15796 Ethanac Business Park Traffic Scope

Hello Charlene,

I just spoke to Chris quickly about using ITE 770. We have no issue with using ITE 150. However, we would like for the traffic scope to address and explain the elephant in the room. The project is named "Ethanac Business Park" so we would like the scope to be crystal clear why ITE 150 is the appropriate transportation code to use. The language could also include reasons why the proposed facility doesn't fit with ITE 770.

If you could update the scope and provide to us by the end of day tomorrow, Chris can take it to the engineering teams traffic meeting first thing Wednesday morning to discuss.

Thanks,

Brett Hamilton, AICP | Senior Planner
Direct: (951) 723-3747| City Hall: (951) 672-6777 |
bhamilton@cityofmenifee.us | www.cityofmenifee.us

From: Brett Hamilton
Sent: Monday, March 11, 2024 8:07 AM
To: Charlene So <cso@urbanxroads.com>; Cano, Kari <Kari.Cano@kimley-horn.com>
Cc: Kelly, Jon <JKelly@C5IP.com>; Aric Evatt <aevatt@urbanxroads.com>; Christopher Heron <cheron@cityofmenifee.us>
Subject: RE: 15796 Ethanac Business Park Traffic Scope

Received. Thank you, Charlene.

Brett Hamilton, AICP | Senior Planner
Community Development Department – Planning Division
City of Menifee | 29844 Haun Road | Menifee, CA 92586
Direct: (951) 723-3747 | City Hall: (951) 672-6777 | Fax: (951) 723-2579
bhamilton@cityofmenifee.us | cityofmenifee.us
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From: Charlene So <cso@urbanxroads.com>
Sent: Sunday, March 10, 2024 11:53 PM
To: Brett Hamilton <bhamilton@cityofmenifee.us>; Cano, Kari <Kari.Cano@kimley-horn.com>
Cc: Kelly, Jon <JKelly@C5IP.com>; Aric Evatt <aevatt@urbanxroads.com>
Subject: JN:15796 Ethanac Business Park Traffic Scope

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Hi Brett,

Below are the links to download and review the updated traffic study scoping agreement as well as our responses to the City's comments. Please let me know if you have any questions. We will schedule the traffic counts once the City approves the scoping agreement. Thank you!

Updated Scoping Agreement: https://urbanxroads.egnyte.com/dl/bUAwLLJEm6

Scoping Agreement Response to Comments Memo:
https://urbanxroads.egnyte.com/dl/0jy3is6jf1

Regards,

CHARLENE SO
(949) 861-0177 Mobile

From: Brett Hamilton <bhamilton@cityofmenifee.us>
Sent: Tuesday, February 27, 2024 8:21 AM
To: Cano, Kari <Kari.Cano@kimley-horn.com>
Cc: Charlene So <cso@urbanxroads.com>; Kelly, Jon <JKelly@C5IP.com>
Subject: Ethanac Business Park Traffic Scope

Kari,

Please see attached comments on Ethanac Business Park Traffic Scoping agreement.

Brett Hamilton, AICP | Senior Planner
Community Development Department – Planning Division
City of Menifee | 29844 Haun Road | Menifee, CA 92586
Direct: (951) 723-3747 | City Hall: (951) 672-6777 | Fax: (951) 723-2579
bhamilton@cityofmenifee.us | cityofmenifee.us
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<image005.png>

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APPENDIX 1.2: SITE ADJACENT QUEUES

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Intersection: 6: Sherman Rd. & Driveway 1

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	28	18
Average Queue (ft)	5	1
95th Queue (ft)	23	9
Link Distance (ft)	523	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Sherman Rd. & Driveway 2

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	43	31
Average Queue (ft)	15	3
95th Queue (ft)	39	16
Link Distance (ft)	753	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 6: Sherman Rd. & Driveway 1

Movement	EB
Directions Served	LR
Maximum Queue (ft)	40
Average Queue (ft)	14
95th Queue (ft)	39
Link Distance (ft)	523
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Sherman Rd. & Driveway 2

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	66	12
Average Queue (ft)	29	1
95th Queue (ft)	54	7
Link Distance (ft)	753	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

APPENDIX 3.1: TRAFFIC COUNTS

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INTERSECTION TURNING MOVEMENT COUNTS

T020624

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 9, 24	LOCATION:	Menifee	PROJECT #: SC4549
	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #: 1
	EAST & WEST:	Ethanac Rd	CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	37	0	54	0	115	109	18	104	0	437
	7:15 AM	0	0	0	29	0	56	0	158	125	29	87	0	484
	7:30 AM	0	0	0	30	0	66	0	206	137	19	122	0	580
	7:45 AM	0	0	0	43	0	74	0	148	121	22	155	0	563
	8:00 AM	0	0	0	33	0	75	0	154	101	19	152	0	534
	8:15 AM	0	0	0	25	0	59	0	119	84	26	153	0	466
	8:30 AM	0	0	0	35	0	75	0	105	79	25	132	0	451
	8:45 AM	0	0	0	29	1	59	0	110	82	13	110	0	404
	VOLUMES	0	0	0	261	1	518	0	1,115	838	171	1,015	0	3,919
	APPROACH %	0%	0%	0%	33%	0%	66%	0%	57%	43%	14%	86%	0%	
	APP/DEPART	0	/	0	780	/	1,010	1,953	/	1,376	1,186	/	1,533	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	135	0	271	0	666	484	89	516	0	2,161
	APPROACH %	0%	0%	0%	33%	0%	67%	0%	58%	42%	15%	85%	0%	
	PEAK HR FACTOR		0.000			0.868			0.838			0.855		0.931
	APP/DEPART	0	/	0	406	/	573	1,150	/	801	605	/	787	0
PM	4:00 PM	0	0	0	67	0	78	0	135	91	27	207	0	605
	4:15 PM	0	0	0	76	0	89	0	156	87	17	189	0	614
	4:30 PM	0	0	0	57	0	71	0	161	93	27	167	0	576
	4:45 PM	0	0	0	84	0	89	0	148	101	25	157	0	604
	5:00 PM	0	0	0	72	0	79	0	170	78	19	174	0	592
	5:15 PM	0	0	0	68	0	89	0	148	63	21	184	0	573
	5:30 PM	0	0	0	91	0	89	0	159	72	16	173	0	600
	5:45 PM	0	0	0	75	0	89	0	156	82	27	170	0	599
	VOLUMES	0	0	0	590	0	673	0	1,233	667	179	1,421	0	4,763
	APPROACH %	0%	0%	0%	47%	0%	53%	0%	65%	35%	11%	89%	0%	
	APP/DEPART	0	/	0	1,263	/	846	1,900	/	1,823	1,600	/	2,094	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	284	0	327	0	600	372	96	720	0	2,399
	APPROACH %	0%	0%	0%	46%	0%	54%	0%	62%	38%	12%	88%	0%	
	PEAK HR FACTOR		0.000			0.883			0.957			0.872		0.977
	APP/DEPART	0	/	0	611	/	468	972	/	884	816	/	1,047	0

U-TURNS

NB 0	SB 0	EB 0	WB 0	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	27	46	0
0	40	33	0
0	30	37	0
0	40	36	0
0	32	21	0
0	33	22	0
0	37	28	0
0	30	27	0
0	269	250	0
0	142	127	0
0	289	255	0
0	160	148	0

I-215 SB Ramps

NORTH LEG

Ethanac Rd WEST LEG — EAST LEG **Ethanac Rd**

SOUTH LEG

I-215 SB Ramps

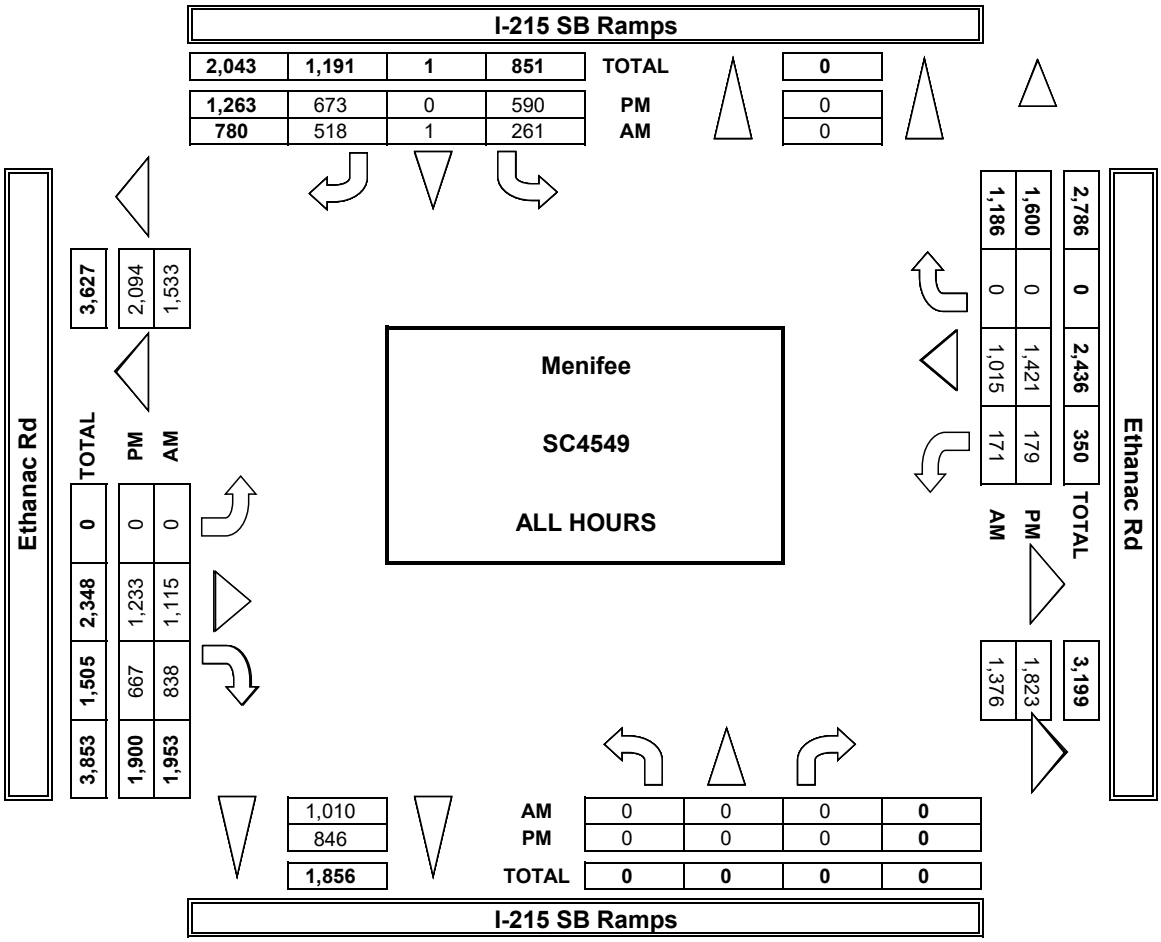
		ALL PED + BIKE & SCOOTER				
		E LEG	W LEG	S LEG	N LEG	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	1	1
	TOTAL	0	0	0	1	1
PM	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	1	1
	4:45 PM	0	0	0	0	0
	5:00 PM	1	0	0	1	2
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	1	1	2
	5:45 PM	0	0	0	0	0
	TOTAL	1	0	1	3	5

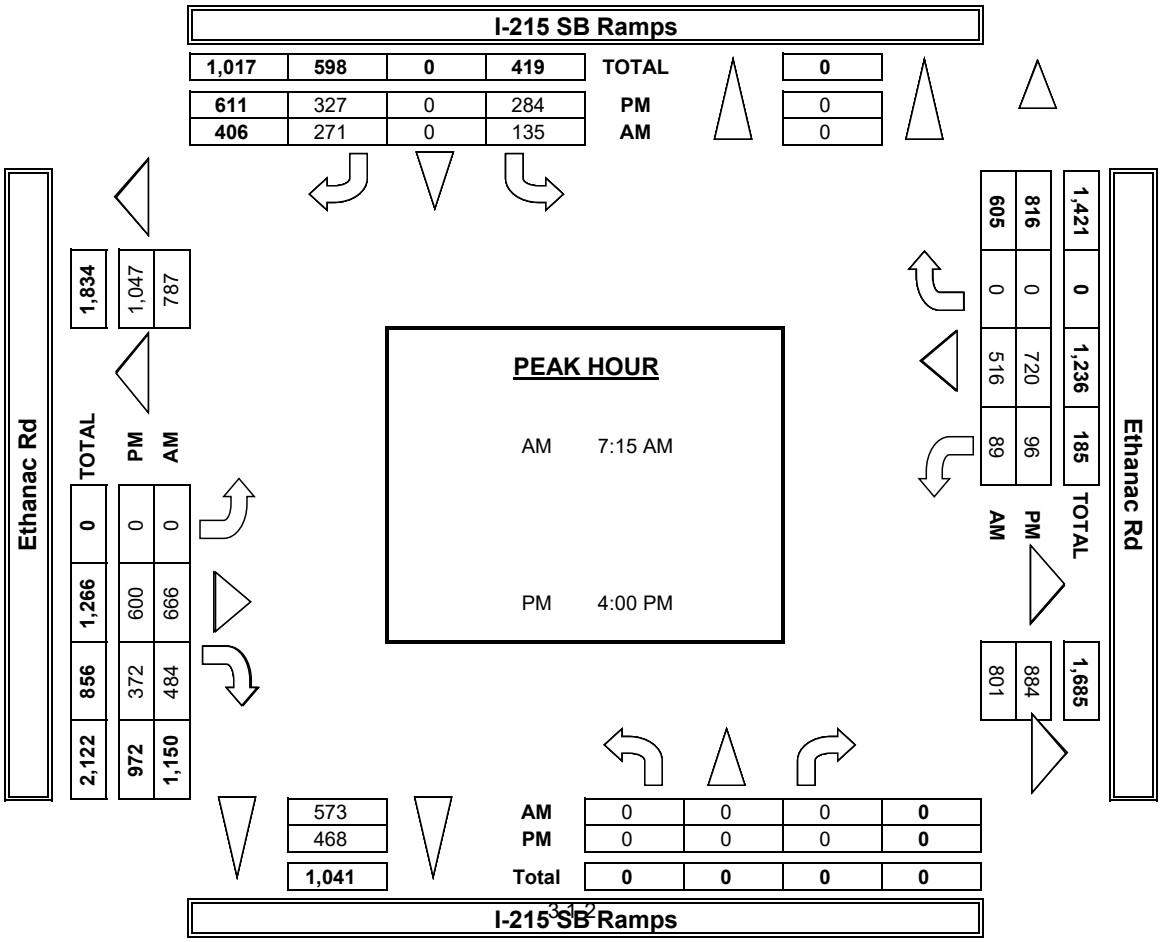
	PEDESTRIAN CROSSINGS				
	E LEG	W LEG	S LEG	N LEG	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	1	1
4:45 PM	0	0	0	0	0
5:00 PM	1	0	0	1	2
5:15 PM	0	0	0	0	0
5:30 PM	0	0	1	0	1
5:45 PM	0	0	0	0	0
TOTAL	1	0	1	2	4

	BICYCLE & SCOOTER CROSSINGS				
	EL	WL	SL	NL	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	1	1
TOTAL	0	0	0	1	1
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	1	1
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	1	1

AimTD LLC

TURNING MOVEMENT COUNTS





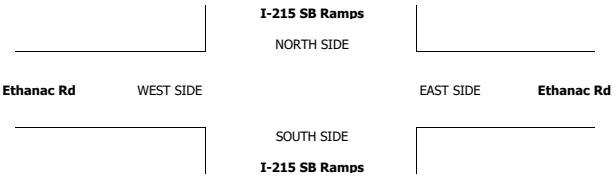
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/9/24 TUESDAY	LOCATION:	Menifee	PROJECT #:	SC4549
	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1
	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

	NOTES:											
PCE Adjusted	Class	1	2	3	4	5	6			AM PM MD OTHER OTHER	▲ N ◄ W E ► S ▼	
	Factor	1	1.5	2	3	2	2					

	NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS				
LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL	NB	SB	EB	WB	TTL
AM 7:00 AM	0	0	0	44	0	75	0	134	141	30	119	0	542					0
7:15 AM	0	0	0	30	0	68	0	170	148	39	102	0	556					0
7:30 AM	0	0	0	34	0	92	0	218	169	26	135	0	672					0
7:45 AM	0	0	0	52	0	89	0	167	149	24	169	0	648					0
8:00 AM	0	0	0	43	0	86	0	168	129	25	165	0	614					0
8:15 AM	0	0	0	33	0	65	0	134	95	33	165	0	524					0
8:30 AM	0	0	0	38	0	86	0	114	91	32	146	0	506					0
8:45 AM	0	0	0	37	1	69	0	124	93	17	129	0	469					0
VOLUMES	0	0	0	309	1	628	0	1,228	1,012	224	1,128	0	4,529	0	0	0	0	0
APPROACH %	0%	0%	0%	33%	0%	67%	0%	55%	45%	17%	83%	0%						
APP/DEPART	0	/	0	938	/	1,237	2,240	/	1,537	1,352	/	1,756	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	0	0	0	158	0	334	0	723	594	113	570	0	2,490					
APPROACH %	0%	0%	0%	32%	0%	68%	0%	55%	45%	16%	84%	0%						
PEAK HR FACTOR		0.000			0.875			0.851			0.888		0.926					
APP/DEPART	0	/	0	492	/	706	1,316	/	880	682	/	904	0					
PM 4:00 PM	0	0	0	70	0	82	0	155	94	29	218	0	646					0
4:15 PM	0	0	0	81	0	94	0	172	92	21	213	0	671					0
4:30 PM	0	0	0	63	0	75	0	173	96	29	184	0	618					0
4:45 PM	0	0	0	94	0	91	0	159	104	29	170	0	646					0
5:00 PM	0	0	0	84	0	82	0	189	80	20	189	0	643					0
5:15 PM	0	0	0	70	0	98	0	159	66	24	192	0	608					0
5:30 PM	0	0	0	94	0	94	0	165	74	18	184	0	628					0
5:45 PM	0	0	0	82	0	94	0	166	88	28	185	0	641					0
VOLUMES	0	0	0	635	0	708	0	1,336	691	196	1,534	0	5,099	0	0	0	0	0
APPROACH %	0%	0%	0%	47%	0%	53%	0%	66%	34%	11%	89%	0%						
APP/DEPART	0	/	0	1,343	/	887	2,027	/	1,971	1,730	/	2,242	0					
BEGIN PEAK HR		4:00 PM																
VOLUMES	0	0	0	306	0	341	0	658	385	107	784	0	2,580					
APPROACH %	0%	0%	0%	47%	0%	53%	0%	63%	37%	12%	88%	0%						
PEAK HR FACTOR		0.000			0.877			0.972			0.905		0.962					
APP/DEPART	0	/	0	647	/	492	1,042	/	964	891	/	1,125	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND (I-215 SB Ramps)			SOUTHBOUND (I-215 SB Ramps)			EASTBOUND (Ethanac Rd)			WESTBOUND (Ethanac Rd)			
LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	30	0	34	0	94	75	10	84	0	327
7:15 AM	0	0	0	28	0	45	0	142	105	21	71	0	412
7:30 AM	0	0	0	26	0	42	0	192	106	13	109	0	488
7:45 AM	0	0	0	32	0	57	0	133	94	19	144	0	479
8:00 AM	0	0	0	24	0	63	0	141	74	13	139	0	454
8:15 AM	0	0	0	19	0	53	0	101	74	20	136	0	403
8:30 AM	0	0	0	30	0	63	0	96	68	20	117	0	394
8:45 AM	0	0	0	22	1	46	0	93	68	11	90	0	331
AM VOLUMES	0	0	0	211	1	403	0	992	664	127	890	0	3,288
AM APPROACH %	0%	0%	0%	34%	0%	66%	0%	60%	40%	12%	88%	0%	
AM APP/DEPART	0	/	0	615	/	792	1,656	/	1,203	1,017	/	1,293	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	0	0	0	110	0	207	0	608	379	66	463	0	1,833
APPROACH %	0%	0%	0%	35%	0%	65%	0%	62%	38%	12%	88%	0%	
PEAK HR FACTOR		0.000			0.890			0.828			0.811		0.939
APP/DEPART	0	/	0	317	/	445	987	/	718	529	/	670	0
4:00 PM	0	0	0	63	0	71	0	116	87	24	192	0	553
4:15 PM	0	0	0	70	0	83	0	135	81	14	166	0	549
4:30 PM	0	0	0	52	0	67	0	148	90	24	150	0	531
4:45 PM	0	0	0	77	0	85	0	133	95	21	137	0	548
5:00 PM	0	0	0	58	0	75	0	152	75	17	157	0	534
5:15 PM	0	0	0	64	0	79	0	132	61	19	173	0	528
5:30 PM	0	0	0	88	0	82	0	149	69	14	160	0	562
5:45 PM	0	0	0	69	0	85	0	137	76	26	153	0	546
PM VOLUMES	0	0	0	541	0	627	0	1,102	634	159	1,288	0	4,351
PM APPROACH %	0%	0%	0%	46%	0%	54%	0%	63%	37%	11%	89%	0%	
PM APP/DEPART	0	/	0	1,168	/	793	1,736	/	1,643	1,447	/	1,915	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	0	0	0	262	0	306	0	532	353	83	645	0	2,181
APPROACH %	0%	0%	0%	46%	0%	54%	0%	60%	40%	11%	89%	0%	
PEAK HR FACTOR		0.000			0.877			0.930			0.843		0.986
APP/DEPART	0	/	0	568	/	436	885	/	794	728	/	951	0

U-TURNS

	NB	SB	EB	WB	TTL
AM	0	0	0	0	0
AM	0	0	0	0	0
AM	0	0	0	0	0
AM	0	0	0	0	0
AM	0	0	0	0	0
AM	0	0	0	0	0
AM	0	0	0	0	0
AM	0	0	0	0	0
AM	0	0	0	0	0
AM PEAK HR	0	0	0	0	
PM	0	0	0	0	0
PM	0	0	0	0	0
PM	0	0	0	0	0
PM	0	0	0	0	0
PM	0	0	0	0	0
PM	0	0	0	0	0
PM	0	0	0	0	0
PM	0	0	0	0	0
PM	0	0	0	0	0
PM PEAK HR	0	0	0	0	

RTOR

	NRR X	SRR 0	ERR 0	WRR X
AM	0	20	36	0
AM	0	32	28	0
AM	0	19	25	0
AM	0	33	31	0
AM	0	27	11	0
AM	0	29	21	0
AM	0	32	23	0
AM	0	23	23	0
AM	0	215	198	0
AM PEAK HR	0	111	95	0
PM	0	35	32	0
PM	0	30	38	0
PM	0	42	34	0
PM	0	43	34	0
PM	0	36	23	0
PM	0	31	21	0
PM	0	28	23	0
PM	0	31	34	0
PM	0	276	239	0
PM PEAK HR	0	150	138	0

I-215 SB Ramps

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

I-215 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	5	0	13	0	14	23	2	12	0	69
	7:15 AM	0	0	0	1	0	6	0	12	10	3	9	0	41
	7:30 AM	0	0	0	3	0	14	0	10	17	3	7	0	54
	7:45 AM	0	0	0	8	0	13	0	4	15	3	5	0	48
	8:00 AM	0	0	0	5	0	9	0	7	15	4	6	0	46
	8:15 AM	0	0	0	2	0	4	0	14	5	3	15	0	43
	8:30 AM	0	0	0	4	0	9	0	5	6	2	8	0	34
	8:45 AM	0	0	0	2	0	10	0	11	11	0	9	0	43
	VOLUMES	0	0	0	30	0	78	0	77	102	20	71	0	378
	APPROACH %	0%	0%	0%	28%	0%	72%	0%	43%	57%	22%	78%	0%	
	APP/DEPART	0	/	0	108	/	122	179	/	107	91	/	149	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	17	0	42	0	33	57	13	27	0	189
	APPROACH %	0%	0%	0%	29%	0%	71%	0%	37%	63%	33%	68%	0%	
	PEAK HR FACTOR		0.000			0.702			0.833			0.833		0.875
	APP/DEPART	0	/	0	59	/	70	90	/	50	40	/	69	0
PM	4:00 PM	0	0	0	3	0	6	0	11	3	3	11	0	37
	4:15 PM	0	0	0	5	0	5	0	14	5	1	11	0	41
	4:30 PM	0	0	0	3	0	3	0	9	1	2	8	0	26
	4:45 PM	0	0	0	3	0	4	0	11	6	2	16	0	42
	5:00 PM	0	0	0	11	0	3	0	10	2	2	8	0	36
	5:15 PM	0	0	0	4	0	7	0	13	1	0	8	0	33
	5:30 PM	0	0	0	2	0	4	0	8	3	1	8	0	26
	5:45 PM	0	0	0	3	0	2	0	19	3	1	9	0	37
	VOLUMES	0	0	0	34	0	34	0	95	24	12	79	0	278
	APPROACH %	0%	0%	0%	50%	0%	50%	0%	80%	20%	13%	87%	0%	
	APP/DEPART	0	/	0	68	/	36	119	/	129	91	/	113	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	14	0	18	0	45	15	8	46	0	146
	APPROACH %	0%	0%	0%	44%	0%	56%	0%	75%	25%	15%	85%	0%	
	PEAK HR FACTOR		0.000			0.800			0.789			0.750		0.869
	APP/DEPART	0	/	0	32	/	23	60	/	59	54	/	64	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	
0	0	0	0	

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	5	6	0
0	5	2	0
0	6	9	0
0	4	3	0
0	3	6	0
0	3	0	0
0	4	4	0
0	4	3	0
0	34	33	0
0	18	20	0
0	3	1	0
0	3	2	0
0	1	0	0
0	1	4	0
0	2	1	0
0	0	0	0
0	0	1	0
0	0	2	0
0	10	11	0
0	8	7	0

I-215 SB Ramps

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

I-215 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS					RTOR			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL	NB	SB	EB	WB	TTL	NRR X	SRR 0	ERR 0	WRR X
AM	7:00 AM	0	0	0	0	0	0	0	2	1	1	7	0	11	0	0	0	0	0	0	0	1	0
	7:15 AM	0	0	0	0	0	0	0	1	2	1	3	0	7	0	0	0	0	0	0	0	2	0
	7:30 AM	0	0	0	0	0	1	0	1	4	1	2	0	9	0	0	0	0	0	0	1	0	0
	7:45 AM	0	0	0	1	0	0	0	1	4	0	1	0	7	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	1	0	0	0	1	3	0	2	0	7	0	0	0	0	0	0	0	1	0
	8:15 AM	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	1	0	0	0	2	1	0	2	0	6	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	3	0	1	0	4	1	0	7	0	16	0	0	0	0	0	0	1	1	0
	VOLUMES	0	0	0	6	0	2	0	12	18	4	24	0	66	0	0	0	0	0	0	2	5	0
	APPROACH %	0%	0%	0%	75%	0%	25%	0%	40%	60%	14%	86%	0%										
	APP/DEPART	0	/	0	8	/	22	30	/	18	28	/	26	0									
	BEGIN PEAK HR		7:15 AM																				
	VOLUMES	0	0	0	2	0	1	0	4	13	2	8	0	30	0	0	0	0		0	1	3	0
	APPROACH %	0%	0%	0%	67%	0%	33%	0%	24%	76%	20%	80%	0%										
	PEAK HR FACTOR		0.000			0.750			0.850			0.625		0.833									
	APP/DEPART	0	/	0	3	/	15	17	/	6	10	/	9	0									
PM	4:00 PM	0	0	0	1	0	1	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	3	0	1	6	0	10	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	1	1	1	5	0	8	0	0	0	0	0	0	0	1	0
	4:45 PM	0	0	0	0	0	0	0	2	0	1	3	0	6	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	1	0	2	1	0	5	0	9	0	0	0	0	0	0	1	0	0
	5:15 PM	0	0	0	0	0	1	0	2	0	0	1	0	4	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	3	0	2	0	0	3	0	8	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	1	0	0	0	0	1	0	5	0	7	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	2	0	6	0	12	3	3	29	0	55	0	0	0	0	0	0	1	1	0
	APPROACH %	0%	0%	0%	25%	0%	75%	0%	80%	20%	9%	91%	0%										
	APP/DEPART	0	/	0	8	/	6	15	/	14	32	/	35	0									
	BEGIN PEAK HR		4:00 PM																				
	VOLUMES	0	0	0	1	0	1	0	6	1	3	15	0	27	0	0	0	0		0	0	1	0
	APPROACH %	0%	0%	0%	50%	0%	50%	0%	86%	14%	17%	83%	0%										
	PEAK HR FACTOR		0.000			0.250			0.583			0.643		0.675									
	APP/DEPART	0	/	0	2	/	4	7	/	7	18	/	16	0									

I-215 SB Ramps

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

I-215 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	2	0	7	0	5	9	5	1	0	29
	7:15 AM	0	0	0	0	0	4	0	2	8	3	3	0	20
	7:30 AM	0	0	0	1	0	9	0	3	9	2	3	0	27
	7:45 AM	0	0	0	2	0	4	0	6	8	0	5	0	25
	8:00 AM	0	0	0	3	0	3	0	4	8	2	3	0	23
	8:15 AM	0	0	0	3	0	2	0	4	3	2	2	0	16
	8:30 AM	0	0	0	0	0	3	0	2	4	3	3	0	15
	8:45 AM	0	0	0	2	0	2	0	2	2	2	3	0	13
	VOLUMES	0	0	0	13	0	34	0	28	51	19	23	0	168
	APPROACH %	0%	0%	0%	28%	0%	72%	0%	35%	65%	45%	55%	0%	
	APP/DEPART	0	/	0	47	/	70	79	/	41	42	/	57	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	6	0	20	0	15	33	7	14	0	95
	APPROACH %	0%	0%	0%	23%	0%	77%	0%	31%	69%	33%	67%	0%	
	PEAK HR FACTOR		0.000			0.650			0.857			0.875		0.880
	APP/DEPART	0	/	0	26	/	40	48	/	21	21	/	34	0
PM	4:00 PM	0	0	0	0	0	0	0	6	0	0	1	0	7
	4:15 PM	0	0	0	1	0	1	0	2	1	1	6	0	12
	4:30 PM	0	0	0	2	0	1	0	3	0	0	4	0	10
	4:45 PM	0	0	0	4	0	0	0	1	0	1	1	0	7
	5:00 PM	0	0	0	3	0	0	0	6	0	0	2	0	11
	5:15 PM	0	0	0	0	0	2	0	1	1	1	1	0	6
	5:30 PM	0	0	0	1	0	0	0	0	0	0	2	0	3
	5:45 PM	0	0	0	2	0	2	0	0	1	0	2	0	7
	VOLUMES	0	0	0	13	0	6	0	19	3	3	19	0	63
	APPROACH %	0%	0%	0%	68%	0%	32%	0%	86%	14%	14%	86%	0%	
	APP/DEPART	0	/	0	19	/	6	22	/	32	22	/	25	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	7	0	2	0	12	1	2	12	0	36
	APPROACH %	0%	0%	0%	78%	0%	22%	0%	92%	8%	14%	86%	0%	
	PEAK HR FACTOR		0.000			0.563			0.542			0.500		0.750
	APP/DEPART	0	/	0	9	/	3	13	/	19	14	/	14	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	
0	0	0	0	
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	2	3	0
0	3	1	0
0	4	3	0
0	3	2	0
0	2	3	0
0	1	1	0
0	1	1	0
0	2	0	0
0	18	14	0
0	12	9	0
0	0	0	0
0	1	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	2	1	0
0	2	0	0

I-215 SB Ramps

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

I-215 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	1	0	0	0	0	0	0	1	0	2
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	1	/	0	0	/	1	1	/	1	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	1	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	
	APP/DEPART	0	/	0	0	/	1	0	/	0	1	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR X	SRR 0	ERR 0	WRR X
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

I-215 SB Ramps

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

I-215 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	1
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
	7:15 AM	0	0	0	0	0	1	0	1	0	1	1	0	4
	7:30 AM	0	0	0	0	0	0	0	0	1	0	1	0	2
	7:45 AM	0	0	0	0	0	0	0	4	0	0	0	0	4
	8:00 AM	0	0	0	0	0	0	0	1	1	0	2	0	4
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	VOLUMES	0	0	0	0	0	1	0	6	3	1	6	0	17
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	67%	33%	14%	86%	0%	
	APP/DEPART	0	/	0	1	/	4	9	/	6	7	/	7	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	1	0	6	2	1	4	0	14
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	75%	25%	20%	80%	0%	
	PEAK HR FACTOR		0.000			0.250			0.500			0.625		0.875
	APP/DEPART	0	/	0	1	/	3	8	/	6	5	/	5	0
PM	4:00 PM	0	0	0	0	0	0	0	2	1	0	2	0	5
	4:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
	5:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	2
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	2
	VOLUMES	0	0	0	0	0	0	0	5	3	1	6	0	15
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	63%	38%	14%	86%	0%	
	APP/DEPART	0	/	0	0	/	4	8	/	5	7	/	6	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	5	2	0	2	0	9
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	71%	29%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.583			0.250		0.450
	APP/DEPART	0	/	0	0	/	2	7	/	5	2	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	3	0
0	0	2	0

I-215 SB Ramps

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

I-215 SB Ramps

T020624

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 9, 24	LOCATION:	Menifee	PROJECT #: SC4549
	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #: 2
	EAST & WEST:	Ethanac Rd	CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	47	0	33	0	0	0	54	98	0	0	75	45	352
	7:15 AM	43	0	31	0	0	0	42	145	0	0	73	51	385
	7:30 AM	51	0	21	0	0	0	69	167	0	0	90	60	458
	7:45 AM	83	0	32	0	0	0	51	138	0	0	101	41	446
	8:00 AM	59	1	20	0	0	0	68	119	0	0	112	37	416
	8:15 AM	63	1	34	0	0	0	57	87	0	0	116	50	408
	8:30 AM	56	0	40	0	0	0	50	90	0	0	101	17	354
	8:45 AM	61	0	40	0	0	0	56	83	0	0	62	25	327
	VOLUMES	463	2	251	0	0	0	447	927	0	0	730	326	3,146
	APPROACH %	65%	0%	35%	0%	0%	0%	33%	67%	0%	0%	69%	31%	
	APP/DEPART	716	/	775	0	/	0	1,374	/	1,178	1,056	/	1,193	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	256	2	107	0	0	0	245	511	0	0	419	188	1,728
	APPROACH %	70%	1%	29%	0%	0%	0%	32%	68%	0%	0%	69%	31%	
	PEAK HR FACTOR		0.793			0.000			0.801			0.914		0.943
	APP/DEPART	365	/	435	0	/	0	756	/	618	607	/	675	0
PM	4:00 PM	99	0	52	0	0	0	49	151	0	0	135	51	537
	4:15 PM	96	0	47	0	0	0	72	160	0	0	110	40	525
	4:30 PM	97	1	40	0	0	0	47	171	0	0	97	34	487
	4:45 PM	85	0	50	0	0	0	56	176	0	0	97	43	507
	5:00 PM	101	0	42	0	0	0	58	184	0	0	92	54	531
	5:15 PM	102	0	73	0	0	0	47	169	0	0	107	48	546
	5:30 PM	86	0	60	0	0	0	60	190	0	0	103	28	527
	5:45 PM	111	0	67	0	0	0	67	164	0	0	86	34	529
	VOLUMES	777	1	431	0	0	0	456	1,365	0	0	827	332	4,189
	APPROACH %	64%	0%	36%	0%	0%	0%	25%	75%	0%	0%	71%	29%	
	APP/DEPART	1,209	/	789	0	/	0	1,821	/	1,796	1,159	/	1,604	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	400	0	242	0	0	0	232	707	0	0	388	164	2,133
	APPROACH %	62%	0%	38%	0%	0%	0%	25%	75%	0%	0%	70%	30%	
	PEAK HR FACTOR		0.902			0.000			0.939			0.890		0.977
	APP/DEPART	642	/	396	0	/	0	939	/	949	552	/	788	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	

RTOR

NRR 0	SRR X	ERR X	WRR 0
23	0	0	17
19	0	0	21
12	0	0	16
13	0	0	13
15	0	0	9
20	0	0	14
31	0	0	4
22	0	0	9
155	0	0	103
60	0	0	52
26	0	0	12
17	0	0	16
19	0	0	6
28	0	0	7
15	0	0	14
17	0	0	13
21	0	0	4
19	0	0	14
162	0	0	86
72	0	0	45

I-215 NB Ramps

NORTH LEG

Ethanac Rd WEST LEG EAST LEG **Ethanac Rd**

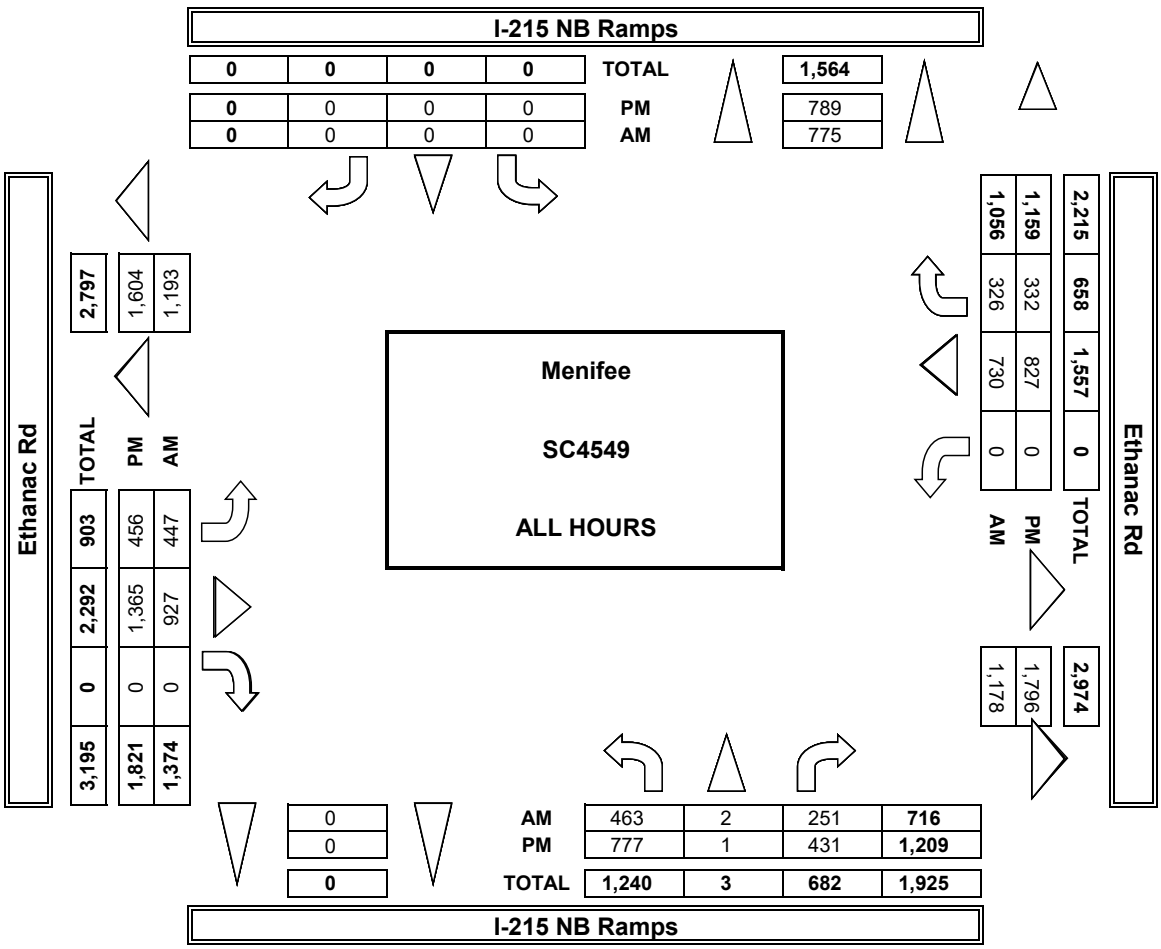
SOUTH LEG

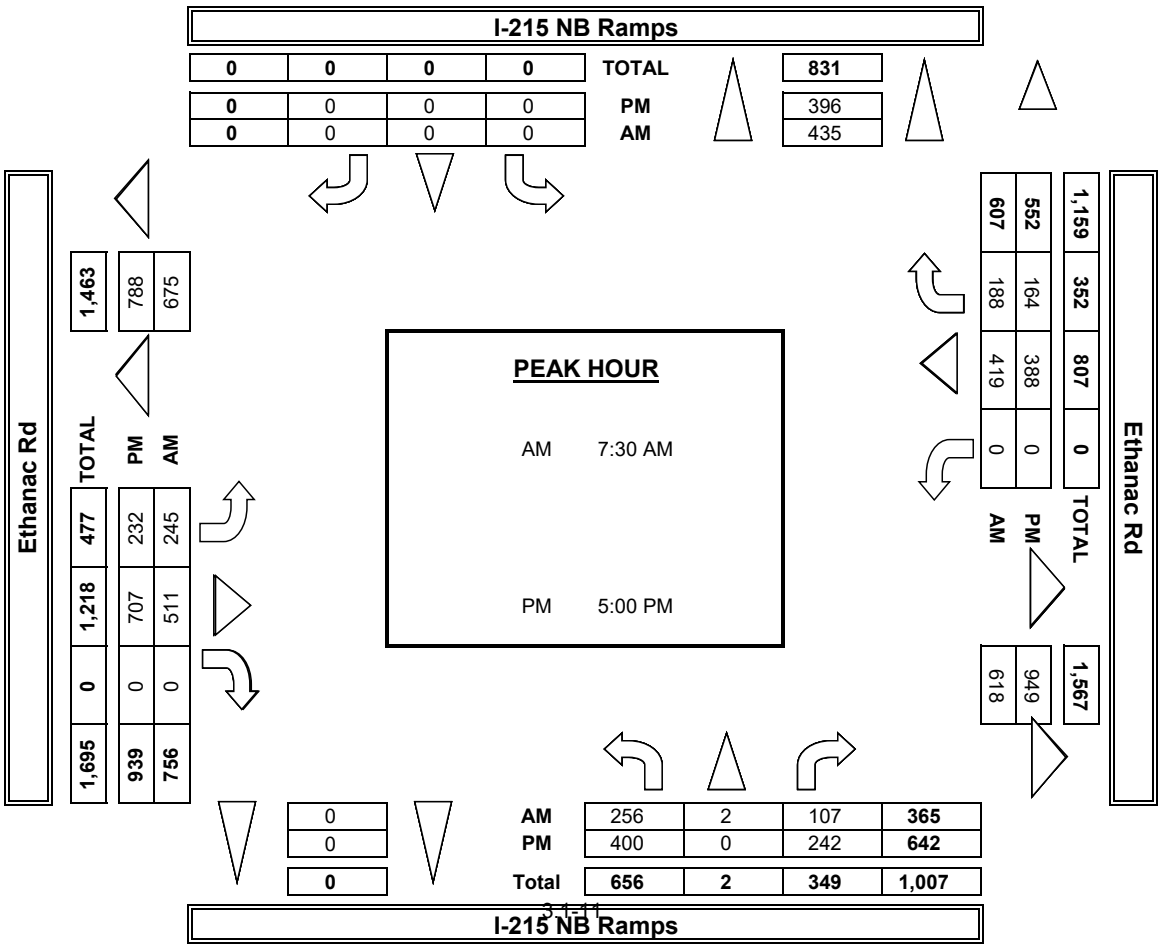
I-215 NB Ramps

		ALL PED + BIKE & SCOOTER					PEDESTRIAN CROSSINGS					BICYCLE & SCOOTER CROSSINGS				
		E LEG	W LEG	S LEG	N LEG	TOTAL	E LEG	W LEG	S LEG	N LEG	TOTAL	EL	WL	SL	NL	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	TOTAL	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	5:45 PM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	TOTAL	0	0	3	2	5	0	0	3	1	4	0	0	0	1	1

AimTD LLC

TURNING MOVEMENT COUNTS





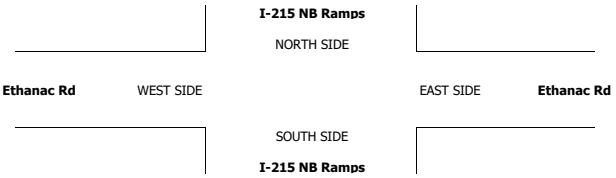
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/9/24 TUESDAY	LOCATION:	Menifee	PROJECT #:	SC4549
	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	2
	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

	NOTES:												
PCE Adjusted	Class	1	2	3	4	5	6			AM PM MD OTHER OTHER		▲ N	
	Factor	1	1.5	2	3	2	2				◄ W	S ▼	E ►

	NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
LANES:	0.5	0.5	1	X	X	X	1	1	X	X	1	0						
7:00 AM	52	0	37	0	0	0	59	119	0	0	97	45	409					0
7:15 AM	51	0	35	0	0	0	47	153	0	0	89	57	431					0
7:30 AM	54	0	24	0	0	0	78	174	0	0	106	72	508					0
7:45 AM	90	0	37	0	0	0	63	155	0	0	109	52	505					0
8:00 AM	62	1	27	0	0	0	77	134	0	0	129	47	475					0
8:15 AM	71	2	44	0	0	0	67	101	0	0	127	59	468					0
8:30 AM	60	0	47	0	0	0	55	97	0	0	119	19	395					0
8:45 AM	75	0	49	0	0	0	64	97	0	0	71	34	389					0
AM VOLUMES	513	3	298	0	0	0	507	1,028	0	0	846	385	3,578	0	0	0	0	0
APPROACH %	63%	0%	37%	0%	0%	0%	33%	67%	0%	0%	69%	31%						
APP/DEPART	813	/	895	0	/	0	1,535	/	1,325	1,231	/	1,359	0					
BEGIN PEAK HR	7:30 AM																	
VOLUMES	276	3	131	0	0	0	283	563	0	0	470	230	1,955					
APPROACH %	67%	1%	32%	0%	0%	0%	33%	67%	0%	0%	67%	33%						
PEAK HR FACTOR	0.806			0.000			0.840			0.943			0.963					
APP/DEPART	410	/	516	0	/	0	846	/	694	700	/	746	0					
4:00 PM	106	0	59	0	0	0	58	164	0	0	141	54	580					0
4:15 PM	105	0	48	0	0	0	78	175	0	0	129	50	584					0
4:30 PM	111	1	47	0	0	0	48	187	0	0	102	39	535					0
4:45 PM	95	0	57	0	0	0	62	190	0	0	104	46	554					0
5:00 PM	114	0	51	0	0	0	69	204	0	0	96	59	591					0
5:15 PM	108	0	91	0	0	0	49	180	0	0	113	54	594					0
5:30 PM	95	0	68	0	0	0	63	196	0	0	107	37	565					0
5:45 PM	122	0	70	0	0	0	73	174	0	0	91	39	568					0
PM VOLUMES	853	1	490	0	0	0	499	1,470	0	0	881	377	4,570	0	0	0	0	0
APPROACH %	63%	0%	36%	0%	0%	0%	25%	75%	0%	0%	70%	30%						
APP/DEPART	1,344	/	877	0	/	0	1,969	/	1,960	1,257	/	1,734	0					
BEGIN PEAK HR	5:00 PM																	
VOLUMES	437	0	280	0	0	0	253	754	0	0	406	188	2,317					
APPROACH %	61%	0%	39%	0%	0%	0%	25%	75%	0%	0%	68%	32%						
PEAK HR FACTOR	0.902			0.000			0.924			0.891			0.976					
APP/DEPART	717	/	441	0	/	0	1,007	/	1,034	594	/	843	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	2
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

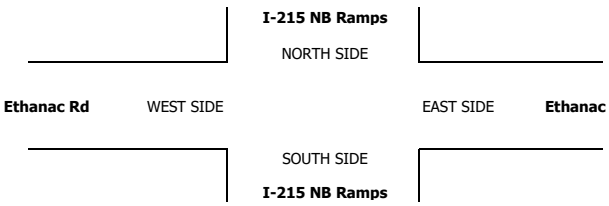
	NORTHBOUND (I-215 NB Ramps)			SOUTHBOUND (I-215 NB Ramps)			EASTBOUND (Ethanac Rd)			WESTBOUND (Ethanac Rd)			
LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
7:00 AM	42	0	27	0	0	0	47	77	0	0	52	45	290
7:15 AM	36	0	27	0	0	0	36	134	0	0	56	43	332
7:30 AM	49	0	18	0	0	0	61	157	0	0	73	45	403
7:45 AM	76	0	25	0	0	0	41	122	0	0	94	33	391
8:00 AM	56	1	12	0	0	0	60	105	0	0	96	28	358
8:15 AM	54	0	24	0	0	0	47	73	0	0	102	42	342
8:30 AM	52	0	33	0	0	0	45	81	0	0	85	16	312
8:45 AM	48	0	33	0	0	0	48	67	0	0	53	19	268
AM VOLUMES	413	1	199	0	0	0	385	816	0	0	611	271	2,696
AM APPROACH %	67%	0%	32%	0%	0%	0%	32%	68%	0%	0%	69%	31%	
AM APP/DEPART	613	/	657	0	/	0	1,201	/	1,015	882	/	1,024	0
BEGIN PEAK HR	7:30 AM												
AM PEAK VOLUMES	235	1	79	0	0	0	209	457	0	0	365	148	1,494
AM PEAK APPROACH %	75%	0%	25%	0%	0%	0%	31%	69%	0%	0%	71%	29%	
PEAK HR FACTOR	0.780			0.000			0.764			0.891			0.927
AM PEAK APP/DEPART	315	/	358	0	/	0	666	/	536	513	/	600	0
4:00 PM	90	0	45	0	0	0	40	137	0	0	126	49	487
4:15 PM	86	0	45	0	0	0	63	142	0	0	94	31	461
4:30 PM	85	1	35	0	0	0	45	155	0	0	89	28	438
4:45 PM	71	0	43	0	0	0	49	161	0	0	87	40	451
5:00 PM	88	0	34	0	0	0	50	160	0	0	86	49	467
5:15 PM	96	0	58	0	0	0	44	152	0	0	100	42	492
5:30 PM	78	0	51	0	0	0	55	182	0	0	96	23	485
5:45 PM	99	0	64	0	0	0	56	150	0	0	80	29	478
PM VOLUMES	693	1	375	0	0	0	402	1,239	0	0	758	291	3,759
PM APPROACH %	65%	0%	35%	0%	0%	0%	24%	76%	0%	0%	72%	28%	
PM APP/DEPART	1,069	/	694	0	/	0	1,641	/	1,614	1,049	/	1,451	0
BEGIN PEAK HR	5:00 PM												
PM PEAK VOLUMES	361	0	207	0	0	0	205	644	0	0	362	143	1,922
PM PEAK APPROACH %	64%	0%	36%	0%	0%	0%	24%	76%	0%	0%	72%	28%	
PEAK HR FACTOR	0.871			0.000			0.896			0.889			0.977
PM PEAK APP/DEPART	568	/	348	0	/	0	849	/	851	505	/	723	0

U-TURNS

	NB	SB	EB	WB	TTL
AM	0	0	0	0	0
AM PEAK	0	0	0	0	
PM	0	0	0	0	0
PM PEAK	0	0	0	0	

RTOR

	NRR 0	SRR X	ERR X	WRR 0
AM	124	0	0	95
AM PEAK	46	0	0	48
PM	135	0	0	80
PM PEAK	58	0	0	42



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	2
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	2	0	4	0	0	0	6	13	0	0	12	0	37
	7:15 AM	2	0	1	0	0	0	5	8	0	0	10	6	32
	7:30 AM	0	0	2	0	0	0	5	8	0	0	10	12	37
	7:45 AM	4	0	6	0	0	0	5	7	0	0	4	2	28
	8:00 AM	1	0	5	0	0	0	5	7	0	0	9	4	31
	8:15 AM	7	1	3	0	0	0	7	9	0	0	11	4	42
	8:30 AM	3	0	3	0	0	0	3	6	0	0	7	0	22
	8:45 AM	3	0	3	0	0	0	4	9	0	0	6	2	27
	VOLUMES	22	1	27	0	0	0	40	67	0	0	69	30	256
	APPROACH %	44%	2%	54%	0%	0%	0%	37%	63%	0%	0%	70%	30%	
	APP/DEPART	50	/	71	0	/	0	107	/	94	99	/	91	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	12	1	16	0	0	0	22	31	0	0	34	22	138
	APPROACH %	41%	3%	55%	0%	0%	0%	42%	58%	0%	0%	61%	39%	
	PEAK HR FACTOR		0.659			0.000			0.828			0.636		0.821
	APP/DEPART	29	/	45	0	/	0	53	/	47	56	/	46	0
PM	4:00 PM	7	0	5	0	0	0	6	8	0	0	7	1	34
	4:15 PM	5	0	2	0	0	0	6	13	0	0	7	4	37
	4:30 PM	4	0	2	0	0	0	2	10	0	0	6	4	28
	4:45 PM	10	0	4	0	0	0	4	10	0	0	8	2	38
	5:00 PM	5	0	3	0	0	0	3	18	0	0	5	3	37
	5:15 PM	3	0	6	0	0	0	3	14	0	0	5	4	35
	5:30 PM	3	0	6	0	0	0	4	6	0	0	6	1	26
	5:45 PM	5	0	2	0	0	0	10	12	0	0	5	2	36
	VOLUMES	42	0	30	0	0	0	38	91	0	0	49	21	271
	APPROACH %	58%	0%	42%	0%	0%	0%	29%	71%	0%	0%	70%	30%	
	APP/DEPART	72	/	59	0	/	0	129	/	121	70	/	91	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	16	0	17	0	0	0	20	50	0	0	21	10	134
	APPROACH %	48%	0%	52%	0%	0%	0%	29%	71%	0%	0%	68%	32%	
	PEAK HR FACTOR		0.917			0.000			0.795			0.861		0.905
	APP/DEPART	33	/	30	0	/	0	70	/	67	31	/	37	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	
0	0	0	0	

RTOR

NRR 0	SRR X	ERR X	WRR 0
2	0	0	0
1	0	0	1
1	0	0	0
1	0	0	0
4	0	0	1
2	0	0	1
2	0	0	0
2	0	0	1
15	0	0	4
8	0	0	2
3	0	0	1
2	0	0	0
1	0	0	0
2	0	0	1
3	0	0	0
1	0	0	0
15	0	0	2
7	0	0	1

I-215 NB Ramps

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

I-215 NB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

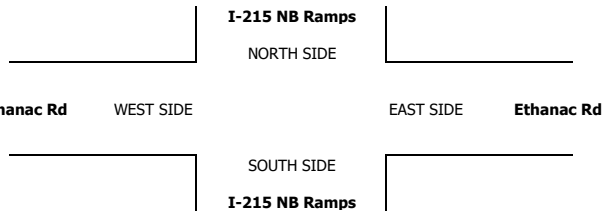
DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	2
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS					RTOR			
	LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 1	ER X	WL X	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL	NRR 0	SRR X	ERR X	WRR 0
AM	7:00 AM	2	0	1	0	0	0	0	2	0	0	6	0	11	0	0	0	0	0	1	0	0	0
	7:15 AM	2	0	1	0	0	0	0	1	0	0	2	1	7	0	0	0	0	0	1	0	0	0
	7:30 AM	1	0	0	0	0	0	0	1	0	0	2	0	4	0	0	0	0	0	0	0	0	0
	7:45 AM	1	0	0	0	0	0	1	1	0	0	0	2	5	0	0	0	0	0	0	0	0	1
	8:00 AM	1	0	2	0	0	0	0	2	0	0	1	2	8	0	0	0	0	0	2	0	0	0
	8:15 AM	0	0	6	0	0	0	0	0	0	0	1	1	8	0	0	0	0	0	2	0	0	0
	8:30 AM	0	0	3	0	0	0	1	2	0	0	2	0	8	0	0	0	0	0	3	0	0	0
	8:45 AM	7	0	1	0	0	0	2	5	0	0	0	0	15	0	0	0	0	0	0	0	0	0
	VOLUMES	14	0	14	0	0	0	4	14	0	0	14	6	66	0	0	0	0	0	9	0	0	1
	APPROACH %	50%	0%	50%	0%	0%	0%	22%	78%	0%	0%	70%	30%										
	APP/DEPART	28	/	10	0	/	0	18	/	28	20	/	28	0									
	BEGIN PEAK HR		7:30 AM																				
	VOLUMES	3	0	8	0	0	0	1	4	0	0	4	5	25	0	0	0	0		4	0	0	1
	APPROACH %	27%	0%	73%	0%	0%	0%	20%	80%	0%	0%	44%	56%										
	PEAK HR FACTOR		0.458			0.000			0.625			0.750		0.781									
	APP/DEPART	11	/	6	0	/	0	5	/	12	9	/	7	0									
PM	4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	4:15 PM	4	0	0	0	0	0	1	2	0	0	3	2	12	0	0	0	0	0	0	0	0	0
	4:30 PM	4	0	0	0	0	0	0	1	0	0	2	1	8	0	0	0	0	0	0	0	0	0
	4:45 PM	3	0	0	0	0	0	2	0	0	0	1	0	6	0	0	0	0	0	0	0	0	0
	5:00 PM	4	0	3	0	0	0	1	1	0	0	1	1	11	0	0	0	0	0	2	0	0	0
	5:15 PM	1	0	3	0	0	0	0	2	0	0	0	0	6	0	0	0	0	0	1	0	0	0
	5:30 PM	3	0	1	0	0	0	1	1	0	0	0	0	6	0	0	0	0	0	0	0	0	0
	5:45 PM	5	0	0	0	0	0	1	0	0	0	0	2	8	0	0	0	0	0	0	0	0	1
	VOLUMES	24	0	7	0	0	0	6	8	0	0	8	6	59	0	0	0	0	0	3	0	0	1
	APPROACH %	77%	0%	23%	0%	0%	0%	43%	57%	0%	0%	57%	43%										
	APP/DEPART	31	/	12	0	/	0	14	/	15	14	/	32	0									
	BEGIN PEAK HR		5:00 PM																				
	VOLUMES	13	0	7	0	0	0	3	4	0	0	1	3	31	0	0	0	0		3	0	0	1
	APPROACH %	65%	0%	35%	0%	0%	0%	43%	57%	0%	0%	25%	75%										
	PEAK HR FACTOR		0.714			0.000			0.875			0.500		0.705									
	APP/DEPART	20	/	6	0	/	0	7	/	11	4	/	14	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

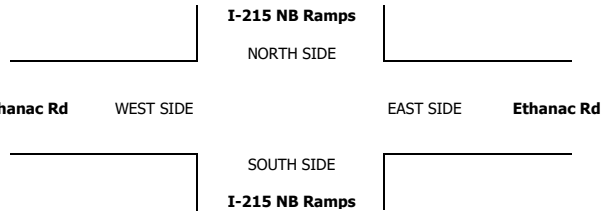
DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	2
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (I-215 NB Ramps)			SOUTHBOUND (I-215 NB Ramps)			EASTBOUND (Ethanac Rd)			WESTBOUND (Ethanac Rd)				U-TURNS					RTOR			
	LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 1	ER X	WL X	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL	NRR 0	SRR X	ERR X	WRR 0
AM	7:00 AM	1	0	0	0	0	0	1	6	0	0	5	0	13	0	0	0	0	0	0	0	0	0
	7:15 AM	2	0	0	0	0	0	1	1	0	0	4	1	9	0	0	0	0	0	0	0	0	0
	7:30 AM	1	0	1	0	0	0	3	1	0	0	4	3	13	0	0	0	0	0	0	0	0	1
	7:45 AM	2	0	1	0	0	0	4	4	0	0	3	4	18	0	0	0	0	0	1	0	0	0
	8:00 AM	0	0	1	0	0	0	3	4	0	0	5	3	16	0	0	0	0	0	0	0	0	0
	8:15 AM	2	0	1	0	0	0	3	4	0	0	2	3	15	0	0	0	0	0	1	0	0	0
	8:30 AM	1	0	1	0	0	0	1	1	0	0	5	1	10	0	0	0	0	0	1	0	0	1
	8:45 AM	2	0	3	0	0	0	2	2	0	0	3	4	16	0	0	0	0	0	2	0	0	1
	VOLUMES	11	0	8	0	0	0	18	23	0	0	31	19	110	0	0	0	0	0	5	0	0	3
	APPROACH %	58%	0%	42%	0%	0%	0%	44%	56%	0%	0%	62%	38%										
	APP/DEPART	19	/	37	0	/	0	41	/	31	50	/	42	0									
	BEGIN PEAK HR	7:30 AM																					
	VOLUMES	5	0	4	0	0	0	13	13	0	0	14	13	62	0	0	0	0		2	0	0	1
	APPROACH %	56%	0%	44%	0%	0%	0%	50%	50%	0%	0%	52%	48%										
	PEAK HR FACTOR	0.750			0.000			0.813			0.844			0.861									
	APP/DEPART	9	/	26	0	/	0	26	/	17	27	/	19	0									
PM	4:00 PM	1	0	2	0	0	0	3	3	0	0	0	1	10	0	0	0	0	0	1	0	0	0
	4:15 PM	1	0	0	0	0	0	0	3	0	0	6	3	13	0	0	0	0	0	0	0	0	2
	4:30 PM	4	0	3	0	0	0	0	5	0	0	0	1	13	0	0	0	0	0	2	0	0	0
	4:45 PM	1	0	2	0	0	0	1	4	0	0	1	1	10	0	0	0	0	0	2	0	0	0
	5:00 PM	2	0	2	0	0	0	4	5	0	0	0	1	14	0	0	0	0	0	0	0	0	0
	5:15 PM	1	0	6	0	0	0	0	1	0	0	1	2	11	0	0	0	0	0	1	0	0	0
	5:30 PM	2	0	2	0	0	0	0	1	0	0	0	4	9	0	0	0	0	0	2	0	0	0
	5:45 PM	1	0	1	0	0	0	0	2	0	0	1	1	6	0	0	0	0	0	1	0	0	1
	VOLUMES	13	0	18	0	0	0	8	24	0	0	9	14	86	0	0	0	0	0	9	0	0	3
	APPROACH %	42%	0%	58%	0%	0%	0%	25%	75%	0%	0%	39%	61%										
	APP/DEPART	31	/	22	0	/	0	32	/	42	23	/	22	0									
	BEGIN PEAK HR	5:00 PM																					
	VOLUMES	6	0	11	0	0	0	4	9	0	0	2	8	40	0	0	0	0		4	0	0	1
	APPROACH %	35%	0%	65%	0%	0%	0%	31%	69%	0%	0%	20%	80%										
	PEAK HR FACTOR	0.607			0.000			0.361			0.625			0.714									
	APP/DEPART	17	/	12	0	/	0	13	/	20	10	/	8	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

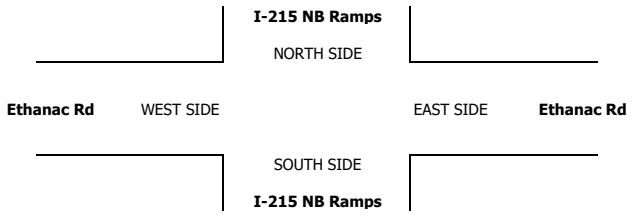
DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	2
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (I-215 NB Ramps)			SOUTHBOUND (I-215 NB Ramps)			EASTBOUND (Ethanac Rd)			WESTBOUND (Ethanac Rd)				U-TURNS					RTOR			
	LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 1	ER X	WL X	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL	NRR 0	SRR X	ERR X	WRR 0
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	1	0	0	0	0	1	0	0	1	0	3	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	APP/DEPART	1	/	0	0	/	0	1	/	2	1	/	1	0									
	BEGIN PEAK HR		7:30 AM																				
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0		0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%										
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250									
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0									
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0									
	BEGIN PEAK HR		5:00 PM																				
	VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0		0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.000			0.000			0.000			0.250		0.250									
	APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	2
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 6: BUSES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	7:15 AM	1	0	1	0	0	0	0	1	0	0	1	0	4
	7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:45 AM	0	0	0	0	0	0	0	4	0	0	0	0	4
	8:00 AM	1	0	0	0	0	0	0	1	0	0	1	0	3
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	VOLUMES	3	0	2	0	0	0	0	6	0	0	4	0	15
	APPROACH %	60%	0%	40%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	5	/	0	0	/	0	6	/	8	4	/	7	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	1	0	0	0	0	0	0	5	0	0	2	0	8
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.250			0.000			0.313			0.500			0.500
	APP/DEPART	1	/	0	0	/	0	5	/	5	2	/	3	0
PM	4:00 PM	1	0	0	0	0	0	0	2	0	0	1	0	4
	4:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	1	0	0	0	0	1	0	0	0	0	2
	5:00 PM	2	0	0	0	0	0	0	0	0	0	0	0	2
	5:15 PM	1	0	0	0	0	0	0	0	0	0	1	0	2
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	VOLUMES	5	0	1	0	0	0	2	3	0	0	2	0	13
	APPROACH %	83%	0%	17%	0%	0%	0%	40%	60%	0%	0%	100%	0%	
	APP/DEPART	6	/	2	0	/	0	5	/	4	2	/	7	0
	BEGIN PEAK HR	5:00 PM												
	VOLUMES	4	0	0	0	0	0	0	0	0	0	1	0	5
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.500			0.000			0.000			0.250			0.625
	APP/DEPART	4	/	0	0	/	0	0	/	0	1	/	5	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR 0	SRR X	ERR X	WRR 0
0	0	0	0	0	1	0	0	0
0	0	0	0	0	1	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	2	0	0	0
0	0	0	0		0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0		0	0	0	0

I-215 NB Ramps

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

I-215 NB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

T020624

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 9, 24

LOCATION: Menifee
NORTH & SOUTH: Encanto Dr
EAST & WEST: Ethanac Rd

PROJECT #: SC4549
LOCATION #: 3
CONTROL: STOP N

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Encanto Dr			SOUTHBOUND Encanto Dr			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	15	0	7	0	0	0	0	119	12	10	105	0	268
	7:15 AM	16	0	5	0	0	0	0	166	10	8	108	0	313
	7:30 AM	9	0	8	0	0	0	0	175	10	7	141	0	350
	7:45 AM	9	0	5	0	0	0	0	157	13	9	133	0	326
	8:00 AM	11	0	7	0	0	0	0	121	18	7	138	0	302
	8:15 AM	11	0	6	0	0	0	0	105	16	7	155	0	300
	8:30 AM	13	0	6	0	0	0	0	111	19	6	105	0	260
	8:45 AM	11	0	6	0	0	0	0	111	12	7	81	0	228
	VOLUMES	95	0	50	0	0	0	0	1,065	110	61	966	0	2,348
	APPROACH %	66%	0%	34%	0%	0%	0%	0%	91%	9%	6%	94%	0%	
	APP/DEPART	145	/	0	0	/	171	1,175	/	1,116	1,028	/	1,061	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	45	0	25	0	0	0	0	619	51	31	520	0	1,291
	APPROACH %	64%	0%	36%	0%	0%	0%	0%	92%	8%	6%	94%	0%	
	PEAK HR FACTOR		0.833			0.000			0.905			0.931		0.922
	APP/DEPART	70	/	0	0	/	82	670	/	644	551	/	565	0
PM	4:00 PM	17	0	19	0	0	0	0	170	33	8	169	0	416
	4:15 PM	11	0	15	0	0	0	0	178	29	6	139	0	378
	4:30 PM	18	0	19	0	0	0	0	189	22	2	115	0	365
	4:45 PM	13	0	12	0	0	0	0	199	27	6	127	0	384
	5:00 PM	14	0	17	0	0	0	0	189	37	10	132	0	399
	5:15 PM	12	0	9	0	0	0	0	207	30	3	143	0	404
	5:30 PM	26	0	10	0	0	0	0	224	26	3	105	0	394
	5:45 PM	15	0	7	0	0	0	0	205	26	2	105	0	360
	VOLUMES	126	0	108	0	0	0	0	1,561	230	40	1,035	0	3,100
	APPROACH %	54%	0%	46%	0%	0%	0%	0%	87%	13%	4%	96%	0%	
	APP/DEPART	234	/	0	0	/	270	1,791	/	1,669	1,075	/	1,161	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	65	0	48	0	0	0	0	819	120	22	507	0	1,581
	APPROACH %	58%	0%	42%	0%	0%	0%	0%	87%	13%	4%	96%	0%	
	PEAK HR FACTOR		0.785			0.000			0.939			0.906		0.978
	APP/DEPART	113	/	0	0	/	142	939	/	867	529	/	572	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	1	1
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Encanto Dr
NORTH LEG

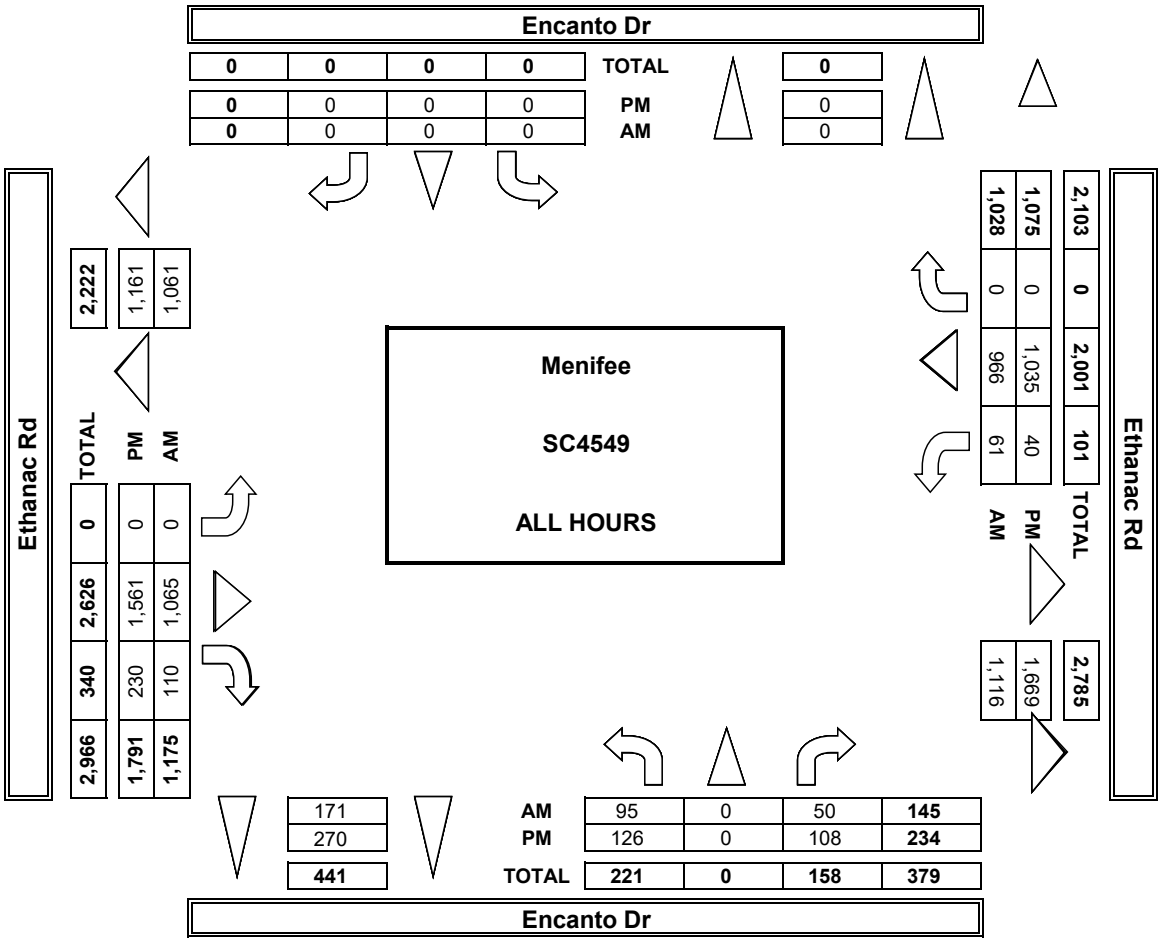
Ethanac Rd WEST LEG — EAST LEG **Ethanac Rd**

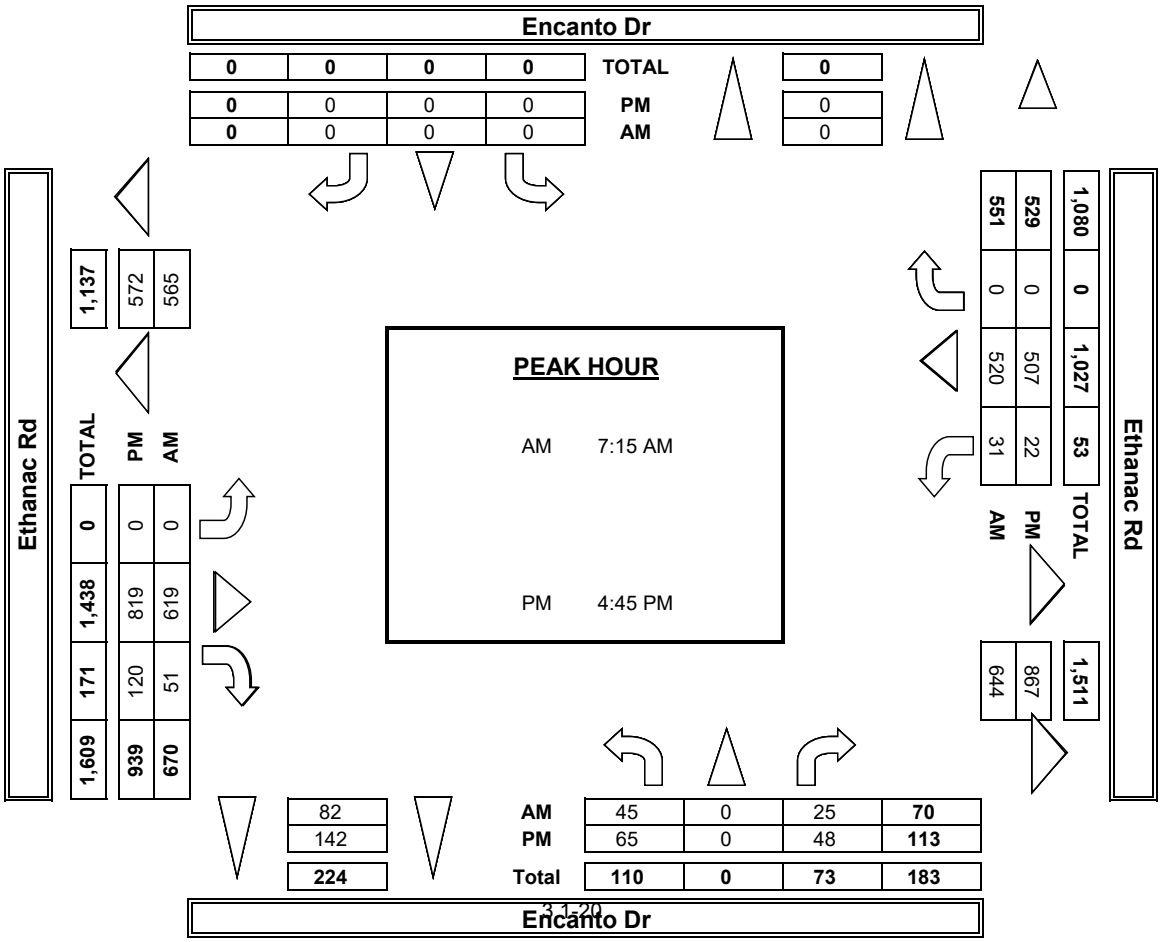
SOUTH LEG
Encanto Dr

		ALL PED + BIKE & SCOOTER					PEDESTRIAN CROSSINGS					BICYCLE & SCOOTER CROSSINGS				
		E LEG	W LEG	S LEG	N LEG	TOTAL	E LEG	W LEG	S LEG	N LEG	TOTAL	EL	WL	SL	NL	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	TOTAL	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	1	0	2	0	1	1	0	2	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	1	0	0	1	2	0	0	0	0	0	1	0	0	1	2
	5:45 PM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	TOTAL	1	1	3	1	6	0	1	3	0	4	1	0	0	1	2

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TUR

PREPARED BY: AimTD LL

DATE:	LOCATION:	Menifee
4/9/24	NORTH & SOUTH:	Encanto Dr
TUESDAY	EAST & WEST:	Ethanac Rd

	NOTES:				
PCE Adjusted	Class	1	2	3	4
	Factor	1	1.5	2	3

	NORTHBOUND Encanto Dr			SOUTHBOUNI Encanto Dr	
LANES:	NL 1	NT X	NR 1	SL X	ST X
AM 7:00 AM	17	0	8	0	0
7:15 AM	16	0	8	0	0
7:30 AM	10	0	8	0	0
7:45 AM	9	0	5	0	0
8:00 AM	15	0	7	0	0
8:15 AM	12	0	6	0	0
8:30 AM	14	0	7	0	0
8:45 AM	11	0	6	0	0
VOLUMES	103	0	55	0	0
APPROACH %	65%	0%	35%	0%	0%
APP/DEPART	158	/	0	0	/
BEGIN PEAK HR		7:15 AM			
VOLUMES	50	0	28	0	0
APPROACH %	64%	0%	36%	0%	0%
PEAK HR FACTOR		0.813			0.000
APP/DEPART	78	/	0	0	/
PM 4:00 PM	17	0	20	0	0
4:15 PM	11	0	15	0	0
4:30 PM	21	0	19	0	0
4:45 PM	14	0	16	0	0
5:00 PM	14	0	17	0	0
5:15 PM	13	0	10	0	0
5:30 PM	28	0	11	0	0
5:45 PM	17	0	7	0	0
VOLUMES	133	0	115	0	0
APPROACH %	54%	0%	46%	0%	0%
APP/DEPART	248	/	0	0	/

BEGIN PEAK HR		4:45 PM			
VOLUMES	68	0	54	0	0
APPROACH %	56%	0%	44%	0%	0%
PEAK HR FACTOR		0.796			0.000
APP/DEPART	121	/	0	0	/

Ethanac Rd WEST SIDE

.NING MOVEMENT COUNTS

.C. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC4549
LOCATION #: 3
CONTROL: STOP N

				AM		▲	
5	6			PM		N	
2	2			MD	◄ W		E ►
				OTHER		S	
				OTHER		▼	

D	EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
SR X	EL X	ET 1	ER 0	WL 1	WT 1	WR X	TOTAL
0	0	144	12	11	125	0	316
0	0	178	10	9	130	0	351
0	0	185	11	7	168	0	388
0	0	178	14	10	152	0	368
0	0	142	18	9	161	0	352
0	0	127	18	8	174	0	343
0	0	125	19	6	124	0	294
0	0	131	14	7	99	0	268
0	0	1,207	115	66	1,133	0	2,679
0%	0%	91%	9%	6%	94%	0%	
181	1,322	/	1,262	1,199	/	1,236	0
0	0	682	53	35	611	0	1,458
0%	0%	93%	7%	5%	95%	0%	
		0.941			0.922		0.939
88	734	/	710	646	/	661	0
0	0	188	35	9	177	0	445
0	0	193	30	6	168	0	422
0	0	209	25	2	123	0	398
0	0	220	27	6	137	0	419
0	0	211	44	10	140	0	436
0	0	234	33	3	154	0	446
0	0	236	28	3	116	0	421
0	0	218	26	3	113	0	383
0	0	1,708	247	41	1,126	0	3,369
0%	0%	87%	13%	4%	96%	0%	
288	1,955	/	1,823	1,167	/	1,259	0

0 0%	0 0%	900 87% 0.969	132 13%	22 4%	547 96% 0.905	0 0%	1,721 0.966
154	1,032	/	954	569	/	614	0

Encanto Dr

NORTH SIDE

EAST SIDE **Ethanac Rd**

SOUTH SIDE

Encanto Dr

U-TURNS				
NB	SB	EB	WB	TTL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Encanto Dr	LOCATION #:	3
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND (Encanto Dr)			SOUTHBOUND (Encanto Dr)			EASTBOUND (Ethanac Rd)			WESTBOUND (Ethanac Rd)			
LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 1	WT 1	WR X	TOTAL
7:00 AM	14	0	6	0	0	0	0	92	12	9	83	0	216
7:15 AM	16	0	3	0	0	0	0	151	10	6	83	0	269
7:30 AM	7	0	8	0	0	0	0	163	9	7	111	0	305
7:45 AM	9	0	5	0	0	0	0	135	12	8	118	0	287
8:00 AM	9	0	7	0	0	0	0	99	18	6	115	0	254
8:15 AM	10	0	6	0	0	0	0	84	13	6	134	0	253
8:30 AM	12	0	4	0	0	0	0	95	19	6	89	0	225
8:45 AM	11	0	6	0	0	0	0	89	11	7	66	0	190
AM VOLUMES	88	0	45	0	0	0	0	908	104	55	799	0	1,999
AM APPROACH %	66%	0%	34%	0%	0%	0%	0%	90%	10%	6%	94%	0%	
AM APP/DEPART	133	/	0	0	/	159	1,012	/	953	854	/	887	0
BEGIN PEAK HR	7:15 AM												
AM PEAK VOLUMES	41	0	23	0	0	0	0	548	49	27	427	0	1,115
AM PEAK APPROACH %	64%	0%	36%	0%	0%	0%	0%	92%	8%	6%	94%	0%	
AM PEAK HR FACTOR	0.842			0.000			0.868			0.901			0.914
AM PEAK APP/DEPART	64	/	0	0	/	76	597	/	571	454	/	468	0
4:00 PM	17	0	17	0	0	0	0	151	31	7	158	0	381
4:15 PM	11	0	15	0	0	0	0	159	28	6	114	0	333
4:30 PM	14	0	19	0	0	0	0	171	19	2	105	0	330
4:45 PM	12	0	10	0	0	0	0	177	27	6	115	0	347
5:00 PM	14	0	17	0	0	0	0	162	32	10	121	0	356
5:15 PM	11	0	8	0	0	0	0	177	28	3	131	0	358
5:30 PM	23	0	9	0	0	0	0	208	25	3	96	0	364
5:45 PM	14	0	7	0	0	0	0	188	26	1	95	0	331
PM VOLUMES	116	0	102	0	0	0	0	1,393	216	38	935	0	2,800
PM APPROACH %	53%	0%	47%	0%	0%	0%	0%	87%	13%	4%	96%	0%	
PM APP/DEPART	218	/	0	0	/	254	1,609	/	1,495	973	/	1,051	0
BEGIN PEAK HR	4:45 PM												
PM PEAK VOLUMES	60	0	44	0	0	0	0	724	112	22	463	0	1,425
PM PEAK APPROACH %	58%	0%	42%	0%	0%	0%	0%	87%	13%	5%	95%	0%	
PM PEAK HR FACTOR	0.813			0.000			0.897			0.905			0.979
PM PEAK APP/DEPART	104	/	0	0	/	134	836	/	768	485	/	523	0

U-TURNS

	NB	SB	EB	WB	TTL
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

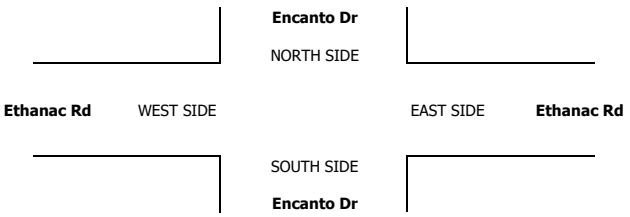
DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Encanto Dr	LOCATION #:	3
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Encanto Dr)			SOUTHBOUND (Encanto Dr)			EASTBOUND (Ethanac Rd)			WESTBOUND (Ethanac Rd)				U-TURNS					RTOR			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 1	WT 1	WR X	TOTAL	NB	SB	EB	WB	TTL	NRR X	SRR X	ERR X	WRR X
AM	7:00 AM	0	0	0	0	0	0	0	17	0	1	12	0	30	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	9	0	2	16	0	27	0	0	0	0	0	0	0	0	0
	7:30 AM	2	0	0	0	0	0	0	9	1	0	20	0	32	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	13	0	0	6	0	19	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	12	0	0	13	0	25	0	0	0	0	0	0	0	0	0
	8:15 AM	1	0	0	0	0	0	0	9	3	1	14	0	28	0	0	0	0	0	0	0	0	0
	8:30 AM	1	0	2	0	0	0	0	9	0	0	6	0	18	0	0	0	1	1	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	12	0	0	8	0	20	0	0	0	0	0	0	0	0	0
	VOLUMES	4	0	2	0	0	0	0	90	4	4	95	0	200	0	0	0	1	1	0	0	0	0
	APPROACH %	67%	0%	33%	0%	0%	0%	0%	96%	4%	4%	95%	0%										
	APP/DEPART	6	/	0	0	/	8	94	/	93	100	/	99	0									
	BEGIN PEAK HR		7:15 AM																				
	VOLUMES	2	0	0	0	0	0	0	43	1	2	55	0	103	0	0	0	0		0	0	0	0
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	98%	2%	4%	96%	0%										
	PEAK HR FACTOR		0.250			0.000			0.846			0.713		0.805									
	APP/DEPART	2	/	0	0	/	3	44	/	43	57	/	57	0									
PM	4:00 PM	0	0	2	0	0	0	0	12	1	1	8	0	24	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	14	1	0	11	0	26	0	0	0	0	0	0	0	0	0
	4:30 PM	3	0	0	0	0	0	0	10	2	0	7	0	22	0	0	0	0	0	0	0	0	0
	4:45 PM	1	0	0	0	0	0	0	14	0	0	9	0	24	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	19	2	0	8	0	29	0	0	0	0	0	0	0	0	0
	5:15 PM	1	0	0	0	0	0	0	19	1	0	8	0	29	0	0	0	0	0	0	0	0	0
	5:30 PM	3	0	1	0	0	0	0	12	0	0	4	0	20	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	14	0	1	7	0	22	0	0	0	0	0	0	0	0	0
	VOLUMES	8	0	3	0	0	0	0	114	7	2	62	0	196	0	0	0	0	0	0	0	0	0
	APPROACH %	73%	0%	27%	0%	0%	0%	0%	94%	6%	3%	97%	0%										
	APP/DEPART	11	/	0	0	/	9	121	/	117	64	/	70	0									
	BEGIN PEAK HR		4:45 PM																				
	VOLUMES	5	0	1	0	0	0	0	64	3	0	29	0	102	0	0	0	0		0	0	0	0
	APPROACH %	83%	0%	17%	0%	0%	0%	0%	96%	4%	0%	100%	0%										
	PEAK HR FACTOR		0.375			0.000			0.798			0.806		0.879									
	APP/DEPART	6	/	0	0	/	3	67	/	65	29	/	34	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Encanto Dr	LOCATION #:	3
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Encanto Dr			SOUTHBOUND Encanto Dr			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	3	0	0	6	0	9
	7:15 AM	0	0	1	0	0	0	0	2	0	0	3	0	6
	7:30 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
	7:45 AM	0	0	0	0	0	0	0	1	0	1	2	0	4
	8:00 AM	0	0	0	0	0	0	0	4	0	0	3	0	7
	8:15 AM	0	0	0	0	0	0	0	6	0	0	2	0	8
	8:30 AM	0	0	0	0	0	0	0	5	0	0	2	0	7
	8:45 AM	0	0	0	0	0	0	0	6	0	0	0	0	6
	VOLUMES	0	0	1	0	0	0	0	28	0	1	20	0	50
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	5%	95%	0%	
	APP/DEPART	1	/	0	0	/	1	28	/	29	21	/	20	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	1	0	0	0	0	8	0	1	10	0	20
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	9%	91%	0%	
	PEAK HR FACTOR		0.250			0.000			0.500			0.917		0.714
	APP/DEPART	1	/	0	0	/	1	8	/	9	11	/	10	0
PM	4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:15 PM	0	0	0	0	0	0	0	2	0	0	5	0	7
	4:30 PM	1	0	0	0	0	0	0	1	0	0	2	0	4
	4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:00 PM	0	0	0	0	0	0	0	4	0	0	2	0	6
	5:15 PM	0	0	1	0	0	0	0	5	0	0	0	0	6
	5:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
	VOLUMES	1	0	1	0	0	0	0	15	0	0	13	0	30
	APPROACH %	50%	0%	50%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	2	/	0	0	/	0	15	/	16	13	/	14	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	1	0	0	0	0	11	0	0	3	0	15
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.250			0.000			0.550			0.375		0.625
	APP/DEPART	1	/	0	0	/	0	11	/	12	3	/	3	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0		
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0		

RTOR			
NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Encanto Dr

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

Encanto Dr

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Encanto Dr	LOCATION #:	3
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND (Encanto Dr)			SOUTHBOUND (Encanto Dr)			EASTBOUND (Ethanac Rd)			WESTBOUND (Ethanac Rd)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	1	0	0	0	0	0	0	6	0	0	4	0	11
	7:15 AM	0	0	1	0	0	0	0	1	0	0	5	0	7
	7:30 AM	0	0	0	0	0	0	0	2	0	0	7	0	9
	7:45 AM	0	0	0	0	0	0	0	5	0	0	7	0	12
	8:00 AM	2	0	0	0	0	0	0	5	0	1	6	0	14
	8:15 AM	0	0	0	0	0	0	0	5	0	0	5	0	10
	8:30 AM	0	0	0	0	0	0	0	2	0	0	6	0	8
	8:45 AM	0	0	0	0	0	0	0	4	1	0	7	0	12
	VOLUMES	3	0	1	0	0	0	0	30	1	1	47	0	83
	APPROACH %	75%	0%	25%	0%	0%	0%	0%	97%	3%	2%	98%	0%	
	APP/DEPART	4	/	0	0	/	2	31	/	31	48	/	50	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	2	0	1	0	0	0	0	13	0	1	25	0	42
	APPROACH %	67%	0%	33%	0%	0%	0%	0%	100%	0%	4%	96%	0%	
	PEAK HR FACTOR	0.375			0.000			0.650			0.929			0.750
	APP/DEPART	3	/	0	0	/	1	13	/	14	26	/	27	0
PM	4:00 PM	0	0	0	0	0	0	0	5	0	0	1	0	6
	4:15 PM	0	0	0	0	0	0	0	3	0	0	9	0	12
	4:30 PM	0	0	0	0	0	0	0	7	1	0	1	0	9
	4:45 PM	0	0	2	0	0	0	0	6	0	0	2	0	10
	5:00 PM	0	0	0	0	0	0	0	4	3	0	1	0	8
	5:15 PM	0	0	0	0	0	0	0	6	1	0	3	0	10
	5:30 PM	0	0	0	0	0	0	0	2	1	0	4	0	7
	5:45 PM	1	0	0	0	0	0	0	3	0	0	1	0	5
	VOLUMES	1	0	2	0	0	0	0	36	6	0	22	0	67
	APPROACH %	33%	0%	67%	0%	0%	0%	0%	86%	14%	0%	100%	0%	
	APP/DEPART	3	/	0	0	/	6	42	/	38	22	/	23	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	0	0	2	0	0	0	0	18	5	0	10	0	35
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	78%	22%	0%	100%	0%	
	PEAK HR FACTOR	0.250			0.000			0.821			0.625			0.875
	APP/DEPART	2	/	0	0	/	5	23	/	20	10	/	10	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR X	SRR X	ERR X	WRR X
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0		0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0		0	0	0	0

Encanto Dr (NORTH SIDE)

Ethanac Rd WEST SIDE — EAST SIDE **Ethanac Rd**

SOUTH SIDE

Encanto Dr

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Encanto Dr	LOCATION #:	3
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Encanto Dr)			SOUTHBOUND (Encanto Dr)			EASTBOUND (Ethanac Rd)			WESTBOUND (Ethanac Rd)				U-TURNS					RTOR			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 1	WT 1	WR X	TOTAL	NB	SB	EB	WB	TTL	NRR X	SRR X	ERR X	WRR X
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0									
	BEGIN PEAK HR		7:15 AM																				
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0		0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%										
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250									
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0									
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0									
	BEGIN PEAK HR		4:45 PM																				
	VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0		0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.000			0.000			0.000			0.250		0.250									
	APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0									

Encanto Dr

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

Encanto Dr

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Encanto Dr	LOCATION #:	3
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Encanto Dr			SOUTHBOUND Encanto Dr			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	0	0	1	0	0	0	0	1	0	0	0	0	2
	7:15 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
	7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:45 AM	0	0	0	0	0	0	0	3	1	0	0	0	4
	8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	1	0	0	0	0	7	1	0	4	0	13
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	88%	13%	0%	100%	0%	
	APP/DEPART	1	/	0	0	/	1	8	/	8	4	/	4	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	6	1	0	3	0	10
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	86%	14%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.438			0.750		0.625
	APP/DEPART	0	/	0	0	/	1	7	/	6	3	/	3	0
PM	4:00 PM	0	0	0	0	0	0	0	1	1	0	1	0	3
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	3	1	0	2	0	6
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	75%	25%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	1	4	/	3	2	/	2	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.250		0.375
	APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0

U-TURNS					
	NB	SB	EB	WB	TTL
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0

RTOR				
	NRR X	SRR X	ERR X	WRR X
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0

Encanto Dr

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

Encanto Dr

INTERSECTION TURNING MOVEMENT COUNTS

T020624

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 9, 24

LOCATION: Menifee
NORTH & SOUTH: Trumble Rd
EAST & WEST: Ethanac Rd

PROJECT #: SC4549
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Trumble Rd			SOUTHBOUND Trumble Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 0.5	SR 0.5	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	5	4	3	0	0	12	18	98	2	4	98	4	248
	7:15 AM	14	0	8	4	1	24	16	156	1	11	77	6	318
	7:30 AM	16	4	7	1	4	14	20	163	1	12	118	3	363
	7:45 AM	12	1	9	10	1	13	17	151	1	7	117	5	344
	8:00 AM	6	2	8	3	2	24	18	115	1	3	115	3	300
	8:15 AM	18	2	3	3	2	20	18	82	2	4	124	4	282
	8:30 AM	8	0	5	4	3	13	19	99	2	6	90	4	253
	8:45 AM	9	0	4	4	0	13	19	91	2	5	66	3	216
	VOLUMES	88	13	47	29	13	133	145	955	12	52	805	32	2,324
	APPROACH %	59%	9%	32%	17%	7%	76%	13%	86%	1%	6%	91%	4%	
	APP/DEPART	148	/	190	175	/	77	1,112	/	1,031	889	/	1,026	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	48	7	32	18	8	75	71	585	4	33	427	17	1,325
	APPROACH %	55%	8%	37%	18%	8%	74%	11%	89%	1%	7%	90%	4%	
	PEAK HR FACTOR		0.806			0.871			0.897			0.897		0.913
	APP/DEPART	87	/	95	101	/	45	660	/	635	477	/	550	0
PM	4:00 PM	25	0	8	7	6	43	11	145	7	8	103	2	365
	4:15 PM	16	1	14	6	2	22	21	166	2	4	109	5	368
	4:30 PM	9	1	4	4	2	34	13	179	5	9	70	0	330
	4:45 PM	12	0	14	1	0	19	17	185	4	3	106	2	363
	5:00 PM	19	0	10	7	5	31	14	164	4	9	95	3	361
	5:15 PM	18	2	12	5	0	20	12	208	2	7	101	2	389
	5:30 PM	14	0	10	3	1	15	10	196	3	7	85	4	348
	5:45 PM	11	1	4	7	0	16	12	191	3	5	90	1	341
	VOLUMES	124	5	76	40	16	200	110	1,434	30	52	759	19	2,866
	APPROACH %	60%	2%	37%	16%	6%	78%	7%	91%	2%	6%	91%	2%	
	APP/DEPART	205	/	134	256	/	98	1,575	/	1,550	830	/	1,084	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	63	2	46	16	6	85	53	753	13	26	387	11	1,462
	APPROACH %	57%	2%	41%	15%	6%	79%	6%	92%	2%	6%	91%	3%	
	PEAK HR FACTOR		0.867			0.622			0.923			0.955		0.940
	APP/DEPART	111	/	66	107	/	45	820	/	815	424	/	536	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	1	0	

RTOR

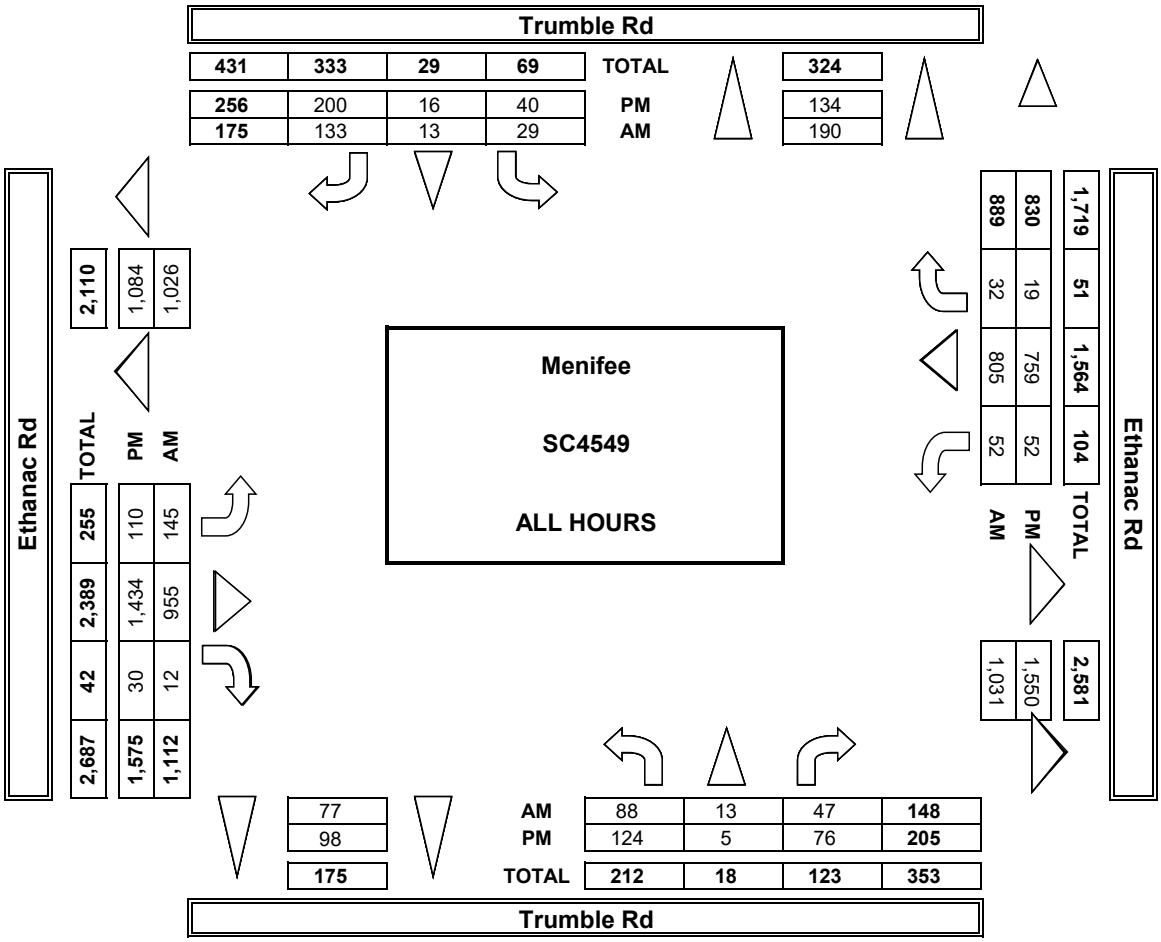
NRR	SRR	ERR	WRR
0	2	0	0
0	2	0	0
1	3	0	0
1	0	0	0
0	1	0	0
2	2	0	0
1	0	0	0
2	2	0	0
7	12	0	0
2	6	0	0
0	11	0	0
1	10	0	0
2	11	0	0
1	7	0	0
1	6	0	0
1	7	0	0
2	3	0	0
1	4	0	0
9	59	0	0
5	23	0	0

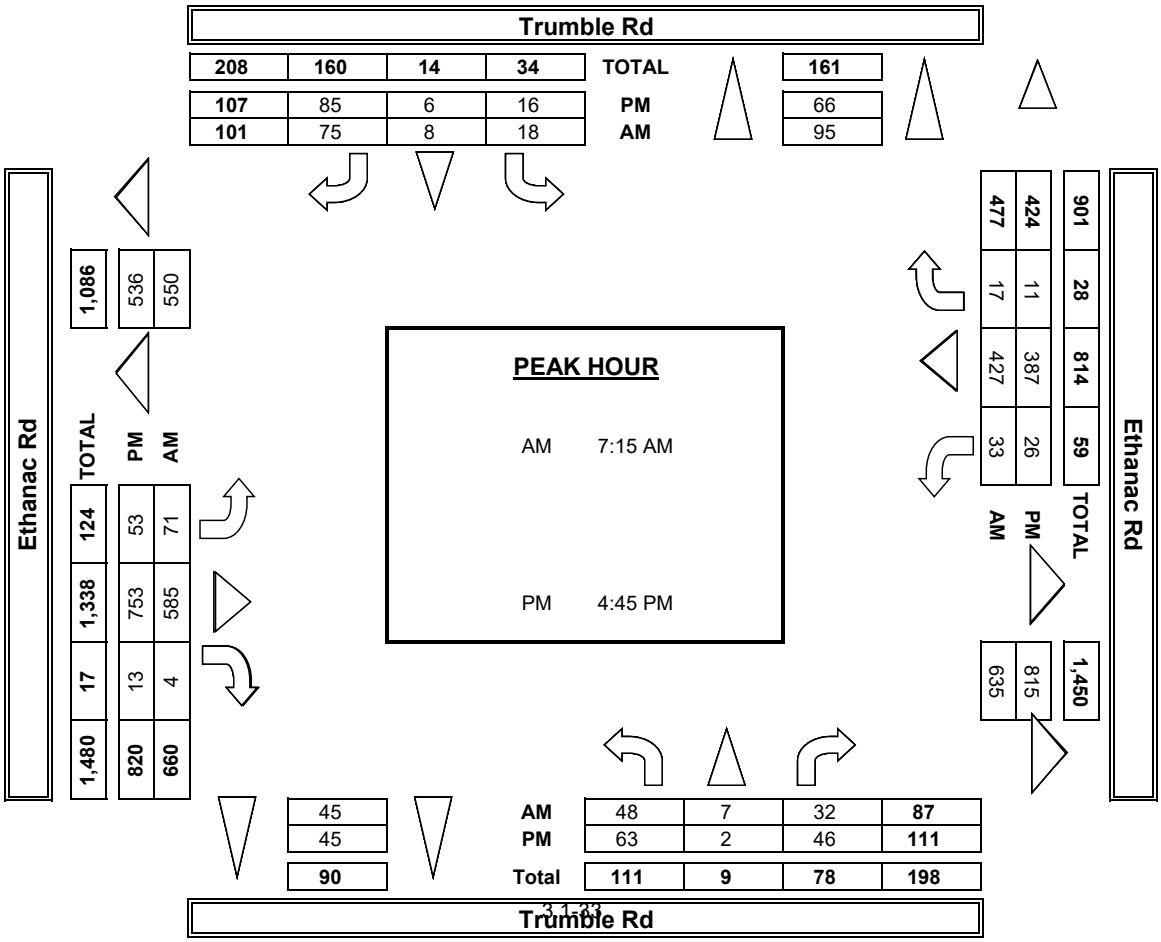
Trumble Rd
NORTH LEG
Ethanac Rd WEST LEG EAST LEG **Ethanac Rd**
SOUTH LEG
Trumble Rd

		ALL PED + BIKE & SCOOTER					PEDESTRIAN CROSSINGS					BICYCLE & SCOOTER CROSSINGS				
		E LEG	W LEG	S LEG	N LEG	TOTAL	E LEG	W LEG	S LEG	N LEG	TOTAL	EL	WL	SL	NL	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	TOTAL	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
PM	4:00 PM	1	0	1	0	2	1	0	1	0	2	0	0	0	0	0
	4:15 PM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	1	0	1	0	2	1	0	1	0	2	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	2	0	3	0	5	2	0	3	0	5	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	4	0	6	0	10	4	0	6	0	10	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/9/24 TUESDAY	LOCATION:	Menifee	PROJECT #:	SC4549
	NORTH & SOUTH:	Trumble Rd	LOCATION #:	4
	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

	NOTES:												
PCE Adjusted	Class	1	2	3	4	5	6			AM PM MD OTHER OTHER		▲ N	
	Factor	1	1.5	2	3	2	2				◄ W		E ►
												S ▼	

	NORTHBOUND (Trumble Rd)			SOUTHBOUND (Trumble Rd)			EASTBOUND (Ethanac Rd)			WESTBOUND (Ethanac Rd)				U-TURNS				
LANES:	NL 1	NT 1	NR 0	SL 1	ST 0.5	SR 0.5	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM 7:00 AM	6	5	6	0	0	22	21	110	4	4	111	4	291					0
7:15 AM	17	0	10	5	2	36	18	168	1	13	88	6	362					0
7:30 AM	21	4	8	1	5	23	24	168	1	18	130	3	404					0
7:45 AM	16	1	13	10	2	23	24	169	1	10	123	6	397					0
8:00 AM	9	3	10	3	3	34	27	127	3	5	127	4	354					0
8:15 AM	22	3	3	6	5	31	26	96	2	5	134	6	336					0
8:30 AM	13	0	7	6	4	21	24	110	3	7	95	5	293					0
8:45 AM	10	0	4	6	0	25	27	106	2	6	69	4	257					0
VOLUMES	111	15	61	37	19	213	189	1,052	17	67	875	38	2,691	0	0	0	0	0
APPROACH %	60%	8%	32%	14%	7%	79%	15%	84%	1%	7%	89%	4%						
APP/DEPART	187	/	242	268	/	103	1,258	/	1,149	979	/	1,198	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	62	8	41	19	11	116	92	632	6	45	468	19	1,516					
APPROACH %	56%	7%	37%	13%	7%	80%	13%	87%	1%	8%	88%	4%						
PEAK HR FACTOR		0.855			0.853			0.943			0.880		0.938					
APP/DEPART	110	/	119	145	/	62	730	/	691	532	/	645	0					
PM 4:00 PM	27	0	9	7	7	46	13	157	13	8	112	3	399					0
4:15 PM	17	1	15	6	3	29	24	176	4	4	126	5	409					0
4:30 PM	11	1	5	5	2	39	16	189	9	9	71	0	355					0
4:45 PM	13	0	18	1	0	22	21	195	6	3	112	2	392					0
5:00 PM	23	0	16	7	6	32	20	178	4	9	98	4	394					0
5:15 PM	19	2	15	5	0	25	14	221	2	8	107	2	419					0
5:30 PM	20	0	11	3	1	17	10	207	3	8	88	5	371					0
5:45 PM	12	1	6	8	0	17	13	201	3	6	95	1	361					0
VOLUMES	140	5	93	42	18	227	129	1,521	44	54	807	21	3,099	0	0	0	0	0
APPROACH %	59%	2%	39%	15%	6%	79%	8%	90%	3%	6%	92%	2%						
APP/DEPART	238	/	155	286	/	115	1,694	/	1,656	882	/	1,173	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	73	2	60	16	7	96	65	800	15	27	404	13	1,575					
APPROACH %	54%	1%	44%	14%	5%	81%	7%	91%	2%	6%	91%	3%						
PEAK HR FACTOR		0.885			0.666			0.927			0.947		0.941					
APP/DEPART	135	/	79	119	/	49	879	/	875	443	/	573	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Trumble Rd	LOCATION #:	4
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

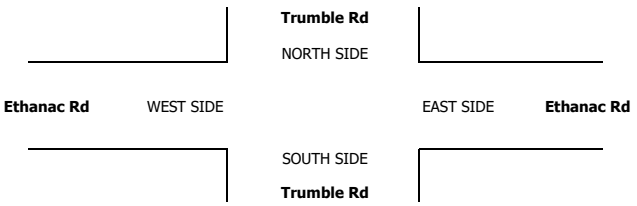
	NORTHBOUND (Trumble Rd)			SOUTHBOUND (Trumble Rd)			EASTBOUND (Ethanac Rd)			WESTBOUND (Ethanac Rd)			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 0.5	SR 0.5	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
7:00 AM	4	2	1	0	0	5	16	86	1	4	82	4	205
7:15 AM	9	0	5	3	0	14	14	141	1	9	64	6	266
7:30 AM	9	4	6	1	3	6	15	156	1	7	104	3	315
7:45 AM	8	1	4	10	0	6	12	133	1	4	112	4	295
8:00 AM	3	1	7	3	0	16	10	102	0	2	102	2	248
8:15 AM	14	1	3	1	0	12	10	66	2	2	112	2	225
8:30 AM	4	0	4	2	1	8	13	85	1	4	84	3	209
8:45 AM	8	0	4	3	0	5	12	73	2	4	61	2	174
AM VOLUMES	59	9	34	23	4	72	102	842	9	36	721	26	1,937
AM APPROACH %	58%	9%	33%	23%	4%	73%	11%	88%	1%	5%	92%	3%	
AM APP/DEPART	102	/	137	99	/	49	953	/	899	783	/	852	0
BEGIN PEAK HR	7:15 AM												
AM PEAK HR VOLUMES	29	6	22	17	3	42	51	532	3	22	382	15	1,124
AM PEAK HR APPROACH %	51%	11%	39%	27%	5%	68%	9%	91%	1%	5%	91%	4%	
AM PEAK HR FACTOR		0.750			0.816			0.852			0.873		0.892
AM PEAK HR APP/DEPART	57	/	72	62	/	28	586	/	571	419	/	453	0
4:00 PM	22	0	7	7	5	41	8	132	4	8	93	1	328
4:15 PM	14	1	13	6	1	17	15	154	1	4	93	5	324
4:30 PM	6	1	3	3	2	28	11	166	3	9	69	0	301
4:45 PM	11	0	12	1	0	16	12	173	3	3	98	2	331
5:00 PM	15	0	5	7	4	30	8	145	4	9	90	1	318
5:15 PM	17	2	9	5	0	16	9	191	2	6	94	2	353
5:30 PM	10	0	8	3	1	14	10	182	3	6	81	3	321
5:45 PM	9	1	1	6	0	14	11	179	3	4	84	1	313
PM VOLUMES	104	5	58	38	13	176	84	1,322	23	49	702	15	2,589
PM APPROACH %	62%	3%	35%	17%	6%	78%	6%	93%	2%	6%	92%	2%	
PM APP/DEPART	167	/	104	227	/	85	1,429	/	1,418	766	/	982	0
BEGIN PEAK HR	4:45 PM												
PM PEAK HR VOLUMES	53	2	34	16	5	76	39	691	12	24	363	8	1,323
PM PEAK HR APPROACH %	60%	2%	38%	16%	5%	78%	5%	93%	2%	6%	92%	2%	
PM PEAK HR FACTOR		0.795			0.591			0.918			0.959		0.937
PM PEAK HR APP/DEPART	89	/	49	97	/	41	742	/	741	395	/	492	0

U-TURNS

	NB	SB	EB	WB	TTL
AM	0	0	0	0	0
AM PEAK HR	0	0	0	0	
PM	0	0	0	0	0
PM PEAK HR	0	0	0	0	

RTOR

	NRR	SRR	ERR	WRR
AM	7	6	0	0
AM PEAK HR	2	4	0	0
PM	8	54	0	0
PM PEAK HR	5	21	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Trumble Rd	LOCATION #:	4
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

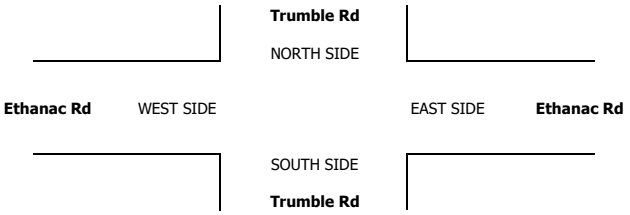
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Trumble Rd			SOUTHBOUND Trumble Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 0.5	SR 0.5	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	1	2	0	0	0	3	0	7	0	0	9	0	22
	7:15 AM	5	0	2	0	1	4	1	10	0	1	9	0	33
	7:30 AM	5	0	1	0	1	5	4	6	0	2	10	0	34
	7:45 AM	2	0	4	0	1	2	2	9	0	1	2	0	23
	8:00 AM	1	1	0	0	2	4	3	8	0	0	8	0	27
	8:15 AM	3	1	0	0	1	3	3	10	0	2	9	1	33
	8:30 AM	2	0	0	1	2	1	4	11	1	2	3	0	27
	8:45 AM	1	0	0	0	0	3	3	13	0	0	5	0	25
	VOLUMES	20	4	7	1	8	25	20	74	1	8	55	1	224
	APPROACH %	65%	13%	23%	3%	24%	74%	21%	78%	1%	13%	86%	2%	
	APP/DEPART	31	/	25	34	/	17	95	/	82	64	/	100	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	13	1	7	0	5	15	10	33	0	4	29	0	117
	APPROACH %	62%	5%	33%	0%	25%	75%	23%	77%	0%	12%	88%	0%	
	PEAK HR FACTOR		0.750			0.833			0.977			0.688		0.860
	APP/DEPART	21	/	11	20	/	9	43	/	40	33	/	57	0
PM	4:00 PM	2	0	1	0	1	1	3	9	0	0	6	1	24
	4:15 PM	2	0	0	0	1	2	6	8	0	0	7	0	26
	4:30 PM	3	0	1	1	0	4	1	11	0	0	0	0	21
	4:45 PM	1	0	0	0	0	2	4	9	0	0	6	0	22
	5:00 PM	3	0	3	0	1	0	3	15	0	0	5	2	32
	5:15 PM	1	0	2	0	0	2	2	12	0	1	5	0	25
	5:30 PM	1	0	2	0	0	0	0	11	0	1	3	1	19
	5:45 PM	2	0	3	0	0	2	1	9	0	1	4	0	22
	VOLUMES	15	0	12	1	3	13	20	84	0	3	36	4	191
	APPROACH %	56%	0%	44%	6%	18%	76%	19%	81%	0%	7%	84%	9%	
	APP/DEPART	27	/	24	17	/	6	104	/	97	43	/	64	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	6	0	7	0	1	4	9	47	0	2	19	3	98
	APPROACH %	46%	0%	54%	0%	20%	80%	16%	84%	0%	8%	79%	13%	
	PEAK HR FACTOR		0.542			0.625			0.778			0.857		0.766
	APP/DEPART	13	/	12	5	/	3	56	/	54	24	/	29	0

U-TURNS NB	SB	EB	WB	TTL	RTOR NRR	SRR	ERR	WRR
0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	5	0	0
0	0	0	0		0	2	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	0	0
0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	1	1	0	0
0	0	0	0	0	1	4	0	0
0	0	0	0		0	1	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

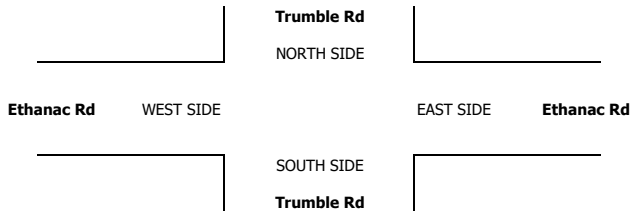
DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Trumble Rd	LOCATION #:	4
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Trumble Rd			SOUTHBOUND Trumble Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS					RTOR			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 0.5	SR 0.5	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM	7:00 AM	0	0	1	0	0	0	0	1	0	0	6	0	8	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	1	0	0	1	0	1	0	1	2	0	6	0	0	0	0	0	0	0	0	0
	7:30 AM	1	0	0	0	0	0	0	0	0	1	1	0	3	0	0	0	0	0	0	0	0	0
	7:45 AM	1	0	0	0	0	1	0	2	0	2	1	1	8	0	0	0	0	0	0	0	0	0
	8:00 AM	2	0	0	0	0	0	3	1	0	0	1	1	8	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	1	0	1	4	2	0	0	1	1	10	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	1	0	1	1	1	0	0	1	1	6	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	2	2	0	1	0	1	6	0	0	0	0	0	0	0	0	0
	VOLUMES	4	0	2	2	0	4	10	10	0	5	13	5	55	0	0	0	0	0	0	0	0	0
	APPROACH %	67%	0%	33%	33%	0%	67%	50%	50%	0%	22%	57%	22%										
	APP/DEPART	6	/	15	6	/	5	20	/	14	23	/	21	0									
	BEGIN PEAK HR		7:15 AM																				
	VOLUMES	4	0	1	0	0	2	3	4	0	4	5	2	25	0	0	0	0		0	0	0	0
	APPROACH %	80%	0%	20%	0%	0%	100%	43%	57%	0%	36%	45%	18%										
	PEAK HR FACTOR		0.625			0.500			0.438			0.688		0.781									
	APP/DEPART	5	/	5	2	/	4	7	/	5	11	/	11	0									
PM	4:00 PM	1	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	1	0	0	0	0	2	0	0	5	0	8	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	1	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	1	2	2	0	0	0	0	5	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	1	3	0	0	0	0	4	0	0	0	0	0	0	0	0	0
	5:30 PM	1	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	VOLUMES	2	0	1	0	0	2	3	9	0	0	9	0	26	0	0	0	0	0	0	0	0	0
	APPROACH %	67%	0%	33%	0%	0%	100%	25%	75%	0%	0%	100%	0%										
	APP/DEPART	3	/	3	2	/	0	12	/	10	9	/	13	0									
	BEGIN PEAK HR		4:45 PM																				
	VOLUMES	1	0	0	0	0	1	3	6	0	0	1	0	12	0	0	0	0		0	0	0	0
	APPROACH %	100%	0%	0%	0%	0%	100%	33%	67%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.250			0.250			0.563			0.250		0.600									
	APP/DEPART	1	/	3	1	/	0	9	/	6	1	/	3	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Trumble Rd	LOCATION #:	4
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Trumble Rd)			SOUTHBOUND (Trumble Rd)			EASTBOUND (Ethanac Rd)			WESTBOUND (Ethanac Rd)			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 0.5	SR 0.5	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	1	0	0	4	1	3	1	0	1	0	11
	7:15 AM	0	0	0	0	0	4	0	2	0	0	2	0	8
	7:30 AM	0	0	0	0	0	3	1	1	0	2	3	0	10
	7:45 AM	1	0	1	0	0	4	3	4	0	0	2	0	15
	8:00 AM	0	0	1	0	0	4	2	3	1	1	3	0	15
	8:15 AM	1	0	0	1	1	4	1	3	0	0	2	0	13
	8:30 AM	2	0	1	0	0	3	1	2	0	0	0	0	9
	8:45 AM	0	0	0	1	0	5	2	3	0	0	0	0	11
	VOLUMES	4	0	4	2	1	31	11	21	2	3	13	0	92
	APPROACH %	50%	0%	50%	6%	3%	91%	32%	62%	6%	19%	81%	0%	
	APP/DEPART	8	/	11	34	/	6	34	/	27	16	/	48	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	1	0	2	0	0	15	6	10	1	3	10	0	48
	APPROACH %	33%	0%	67%	0%	0%	100%	35%	59%	6%	23%	77%	0%	
	PEAK HR FACTOR	0.375			0.938			0.607			0.650			0.800
	APP/DEPART	3	/	6	15	/	4	17	/	12	13	/	26	0
PM	4:00 PM	0	0	0	0	0	1	0	3	3	0	2	0	9
	4:15 PM	0	0	0	0	0	3	0	2	1	0	4	0	10
	4:30 PM	0	0	0	0	0	1	1	2	2	0	0	0	6
	4:45 PM	0	0	2	0	0	1	1	2	1	0	1	0	8
	5:00 PM	1	0	2	0	0	0	1	2	0	0	0	0	6
	5:15 PM	0	0	1	0	0	2	0	2	0	0	1	0	6
	5:30 PM	2	0	0	0	0	1	0	2	0	0	0	0	5
	5:45 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
	VOLUMES	3	0	5	0	0	9	3	17	7	0	9	0	54
	APPROACH %	38%	0%	63%	0%	0%	100%	11%	61%	25%	0%	100%	0%	
	APP/DEPART	8	/	3	9	/	7	28	/	22	9	/	22	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	3	0	5	0	0	4	2	8	1	0	2	0	26
	APPROACH %	38%	0%	63%	0%	0%	100%	17%	67%	8%	0%	100%	0%	
	PEAK HR FACTOR	0.667			0.500			0.750			0.500			0.813
	APP/DEPART	8	/	2	4	/	1	12	/	13	2	/	10	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	1	0	

RTOR

NRR	SRR	ERR	WRR
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	1	0	0
0	1	0	0

Trumble Rd

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

Trumble Rd

INTERSECTION TURNING MOVEMENT COUNTS

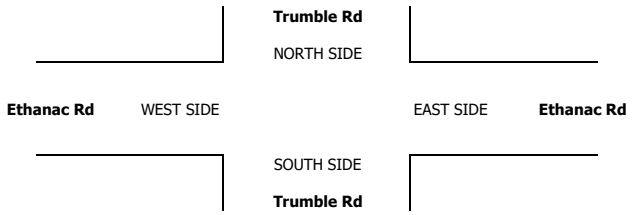
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Trumble Rd	LOCATION #:	4
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Trumble Rd			SOUTHBOUND Trumble Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS					RTOR			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 0.5	SR 0.5	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0									
	BEGIN PEAK HR		7:15 AM																				
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0		0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%										
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250									
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0									
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0									
	BEGIN PEAK HR		4:45 PM																				
	VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0		0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.000			0.000			0.000			0.250		0.250									
	APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Trumble Rd	LOCATION #:	4
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	SIGNAL

CLASS 6: BUSES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Trumble Rd)			SOUTHBOUND (Trumble Rd)			EASTBOUND (Ethanac Rd)			WESTBOUND (Ethanac Rd)			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 0.5	SR 0.5	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	2
	7:15 AM	0	0	0	1	0	1	1	1	0	0	0	0	4
	7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
	8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	0	1	0	1	2	6	0	0	2	0	13
	APPROACH %	100%	0%	0%	50%	0%	50%	25%	75%	0%	0%	100%	0%	
	APP/DEPART	1	/	2	2	/	0	8	/	7	2	/	4	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	1	0	0	1	0	1	1	5	0	0	1	0	10
	APPROACH %	100%	0%	0%	50%	0%	50%	17%	83%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.250			0.250			0.500			0.250		0.625
	APP/DEPART	1	/	1	2	/	0	6	/	6	1	/	3	0
PM	4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	VOLUMES	0	0	0	1	0	0	0	2	0	0	2	0	5
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	1	/	0	2	/	3	2	/	2	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	0	0	0	0	1	0	0	1	0	2
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.250		0.500
	APP/DEPART	0	/	0	0	/	0	1	/	1	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	
0	0	0	0	

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	
0	0	0	

Trumble Rd

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

Trumble Rd

INTERSECTION TURNING MOVEMENT COUNTS

T020624

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 9, 24

LOCATION: Menifee
NORTH & SOUTH: Sherman Rd
EAST & WEST: Ethanac Rd

PROJECT #: SC4549
LOCATION #: 5
CONTROL: STOP N/S

NOTES:
Queue WB AM

AM / PM / MD / OTHER / OTHER

N ▲ / ◄ W / E ► / S ▼

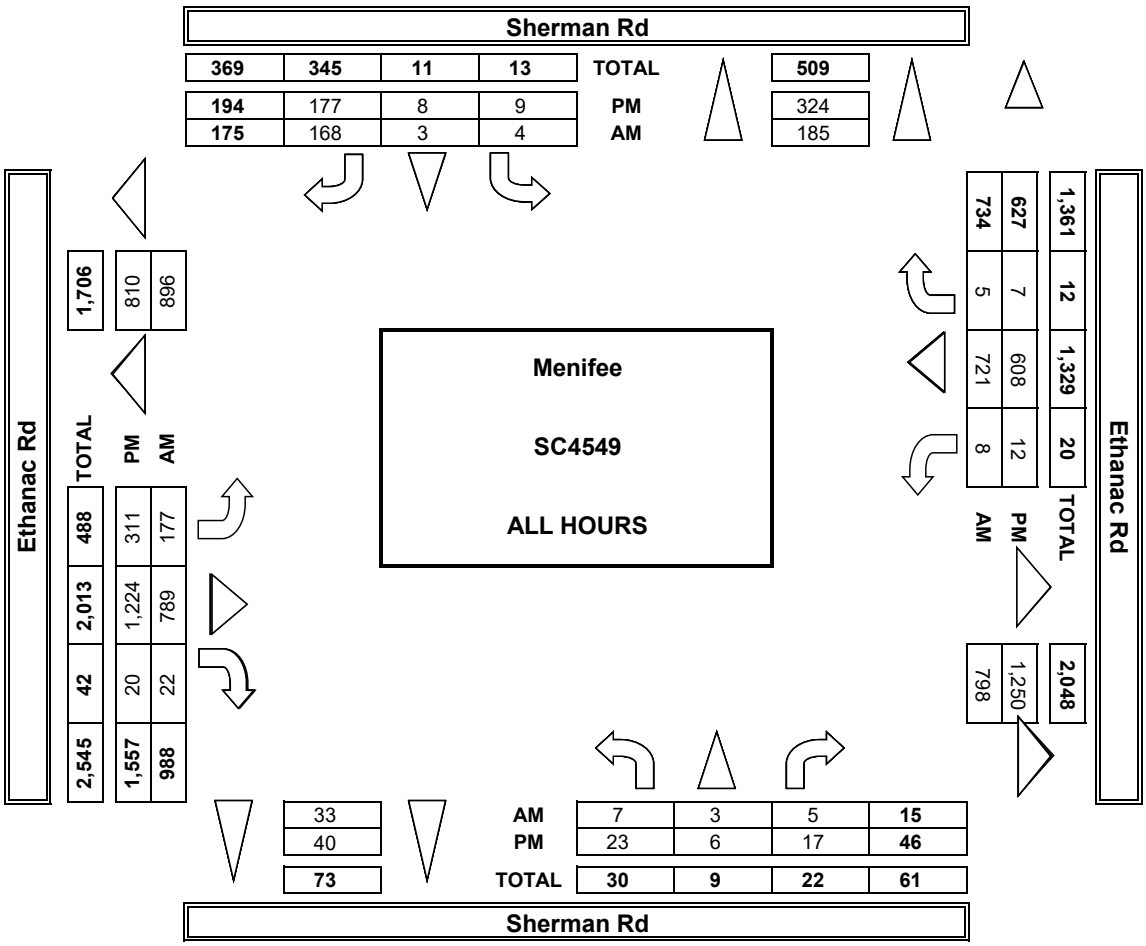
		NORTHBOUND (Sherman Rd)			SOUTHBOUND (Sherman Rd)			EASTBOUND (Ethanac Rd)			WESTBOUND (Ethanac Rd)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	1	1	1	1	19	17	82	2	3	90	0	217
	7:15 AM	2	0	2	1	1	17	21	130	5	1	81	0	261
	7:30 AM	0	1	0	0	0	17	20	151	2	0	104	0	295
	7:45 AM	3	0	0	1	0	22	25	126	6	2	115	3	303
	8:00 AM	0	0	2	0	0	23	19	93	2	0	98	2	239
	8:15 AM	2	0	0	0	0	26	21	68	2	0	83	0	202
	8:30 AM	0	1	0	0	0	27	30	69	0	1	85	0	213
	8:45 AM	0	0	0	1	1	17	24	70	3	1	65	0	182
	VOLUMES	7	3	5	4	3	168	177	789	22	8	721	5	1,912
	APPROACH %	47%	20%	33%	2%	2%	96%	18%	80%	2%	1%	98%	1%	
	APP/DEPART	15	/	185	175	/	33	988	/	798	734	/	896	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	5	1	4	2	1	79	85	500	15	3	398	5	1,098
	APPROACH %	50%	10%	40%	2%	1%	96%	14%	83%	3%	1%	98%	1%	
	PEAK HR FACTOR		0.625			0.891			0.867			0.846		0.906
	APP/DEPART	10	/	91	82	/	19	600	/	506	406	/	482	0
PM	4:00 PM	1	1	0	1	1	20	36	131	3	2	88	3	287
	4:15 PM	2	0	5	0	0	25	41	138	3	2	76	0	292
	4:30 PM	2	1	1	1	0	14	34	153	2	2	59	0	269
	4:45 PM	6	0	1	2	1	17	37	157	3	3	89	0	316
	5:00 PM	3	1	0	2	1	23	34	145	2	2	84	1	298
	5:15 PM	4	1	3	1	2	28	41	178	1	1	80	1	341
	5:30 PM	0	2	5	2	1	27	47	165	0	0	62	1	312
	5:45 PM	5	0	2	0	2	23	41	157	6	0	70	1	307
	VOLUMES	23	6	17	9	8	177	311	1,224	20	12	608	7	2,424
	APPROACH %	50%	13%	37%	5%	4%	91%	20%	79%	1%	2%	97%	1%	
	APP/DEPART	46	/	324	194	/	40	1,557	/	1,250	627	/	810	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	13	4	9	7	5	95	159	645	6	6	315	3	1,268
	APPROACH %	50%	15%	35%	7%	5%	89%	20%	80%	1%	2%	97%	1%	
	PEAK HR FACTOR		0.813			0.863			0.917			0.880		0.927
	APP/DEPART	26	/	166	107	/	17	811	/	661	324	/	424	0

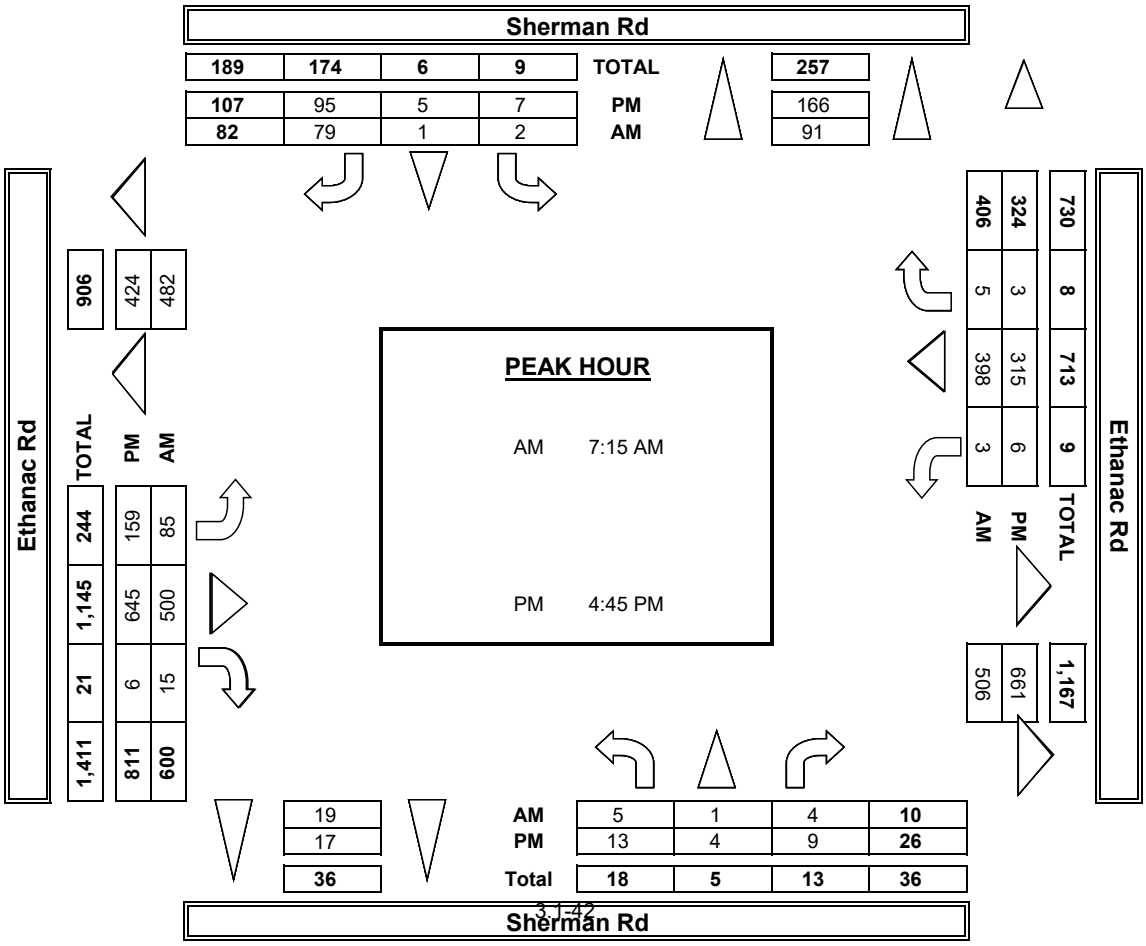
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





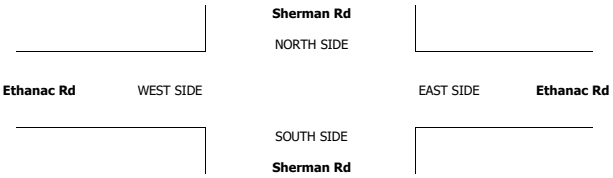
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/9/24 TUESDAY	LOCATION:	Menifee	PROJECT #:	SC4549
	NORTH & SOUTH:	Sherman Rd	LOCATION #:	5
	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

	NOTES:											
PCE Adjusted	Class	1	2	3	4	5	6		AM		▲ N	
	Factor	1	1.5	2	3	2	2		PM	◄ W		E ►
									MD			
									OTHER		S ▼	
									OTHER			

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	1	1	1	1	27	21	99	2	4	95	0	251					0
	7:15 AM	2	0	2	1	1	21	23	142	6	1	88	0	286					0
	7:30 AM	0	1	0	0	0	20	20	160	2	0	116	0	318					0
	7:45 AM	3	0	0	1	0	23	26	142	9	2	125	3	332					0
	8:00 AM	0	0	2	0	0	28	19	104	4	0	108	3	267					0
	8:15 AM	6	0	0	0	0	29	23	85	2	0	90	0	234					0
	8:30 AM	0	1	0	0	0	29	32	79	0	1	90	0	231					0
	8:45 AM	0	0	0	2	1	18	25	84	3	1	71	0	204					0
	VOLUMES	11	3	5	5	3	192	186	893	28	9	781	6	2,120	0	0	0	0	0
	APPROACH %	58%	16%	26%	2%	2%	96%	17%	81%	2%	1%	98%	1%						
	APP/DEPART	19	/	195	200	/	39	1,106	/	902	795	/	984	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	5	1	4	2	1	90	87	547	21	3	436	6	1,201					
	APPROACH %	50%	10%	40%	2%	1%	97%	13%	84%	3%	1%	98%	1%						
	PEAK HR FACTOR		0.625			0.845			0.901			0.857		0.906					
	APP/DEPART	10	/	94	93	/	25	654	/	553	444	/	531	0					
PM	4:00 PM	1	1	0	1	1	21	37	138	7	2	95	3	306					0
	4:15 PM	2	0	5	0	0	34	46	146	3	2	85	0	322					0
	4:30 PM	2	1	1	1	0	14	35	161	6	4	61	0	285					0
	4:45 PM	8	0	1	2	1	19	42	167	3	3	92	0	336					0
	5:00 PM	3	1	0	2	1	24	38	163	3	2	88	1	324					0
	5:15 PM	5	1	3	1	3	29	44	196	1	1	85	1	369					0
	5:30 PM	0	2	6	2	1	28	51	172	0	0	64	2	326					0
	5:45 PM	5	0	3	0	3	24	43	168	6	0	75	2	328					0
	VOLUMES	26	6	18	9	10	191	333	1,309	29	14	643	8	2,594	0	0	0	0	0
	APPROACH %	52%	12%	36%	4%	5%	91%	20%	78%	2%	2%	97%	1%						
	APP/DEPART	50	/	347	210	/	52	1,670	/	1,336	665	/	859	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	16	4	10	7	6	99	174	697	7	6	328	4	1,355					
	APPROACH %	53%	14%	33%	6%	5%	89%	20%	79%	1%	2%	97%	1%						
	PEAK HR FACTOR		0.806			0.854			0.910			0.893		0.918					
	APP/DEPART	29	/	181	111	/	18	877	/	714	338	/	442	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Sherman Rd	LOCATION #:	5
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	1	1	1	1	13	14	64	2	2	84	0	183
	7:15 AM	2	0	2	1	1	11	19	116	4	1	74	0	231
	7:30 AM	0	1	0	0	0	13	20	140	2	0	92	0	268
	7:45 AM	3	0	0	1	0	21	24	107	4	2	104	3	269
	8:00 AM	0	0	2	0	0	20	19	80	1	0	87	1	210
	8:15 AM	0	0	0	0	0	20	19	53	2	0	75	0	169
	8:30 AM	0	1	0	0	0	25	28	56	0	1	78	0	189
	8:45 AM	0	0	0	0	1	16	23	55	3	1	57	0	156
	VOLUMES	5	3	5	3	3	139	166	671	18	7	651	4	1,675
	APPROACH %	38%	23%	38%	2%	2%	96%	19%	78%	2%	1%	98%	1%	
	APP/DEPART	13	/	173	145	/	28	855	/	679	662	/	795	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	5	1	4	2	1	65	82	443	11	3	357	4	978
	APPROACH %	50%	10%	40%	3%	1%	96%	15%	83%	2%	1%	98%	1%	
	PEAK HR FACTOR		0.625			0.773			0.827			0.835		0.909
	APP/DEPART	10	/	87	68	/	15	536	/	449	364	/	427	0
PM	4:00 PM	1	1	0	1	1	18	35	120	1	2	81	3	264
	4:15 PM	2	0	5	0	0	18	36	128	3	2	66	0	260
	4:30 PM	2	1	1	1	0	14	33	142	0	1	56	0	251
	4:45 PM	5	0	1	2	1	14	34	145	3	3	85	0	293
	5:00 PM	3	1	0	2	1	22	27	129	1	2	77	1	266
	5:15 PM	3	1	3	1	1	26	35	158	1	1	74	1	305
	5:30 PM	0	2	4	2	1	26	43	157	0	0	59	0	294
	5:45 PM	5	0	1	0	1	22	38	143	6	0	64	0	280
	VOLUMES	21	6	15	9	6	160	281	1,122	15	11	562	5	2,215
	APPROACH %	50%	14%	36%	5%	3%	91%	20%	79%	1%	2%	97%	1%	
	APP/DEPART	42	/	292	175	/	32	1,420	/	1,146	578	/	745	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	11	4	8	7	4	88	139	589	5	6	295	2	1,159
	APPROACH %	48%	17%	35%	7%	4%	89%	19%	80%	1%	2%	97%	1%	
	PEAK HR FACTOR		0.821			0.853			0.918			0.861		0.947
	APP/DEPART	23	/	145	99	/	15	734	/	604	303	/	395	0

U-TURNS

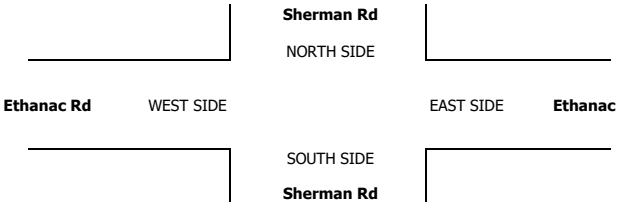
AM NB	AM SB	AM EB	AM WB	AM TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

PM NB	PM SB	PM EB	PM WB	PM TTL
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	1	0	

RTOR

AM NRR	AM SRR	AM ERR	AM WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

PM NRR	PM SRR	PM ERR	PM WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Sherman Rd	LOCATION #:	5
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:	AM PM MD OTHER OTHER	▲ N ◄ W E ► S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	3	1	12	0	1	4	0	21
	7:15 AM	0	0	0	0	0	5	1	8	0	0	5	0	19
	7:30 AM	0	0	0	0	0	3	0	9	0	0	7	0	19
	7:45 AM	0	0	0	0	0	1	1	11	1	0	5	0	19
	8:00 AM	0	0	0	0	0	1	0	9	0	0	6	1	17
	8:15 AM	0	0	0	0	0	6	1	9	0	0	4	0	20
	8:30 AM	0	0	0	0	0	1	1	9	0	0	4	0	15
	8:45 AM	0	0	0	1	0	0	1	8	0	0	5	0	15
	VOLUMES	0	0	0	1	0	20	6	75	1	1	40	1	145
	APPROACH %	0%	0%	0%	5%	0%	95%	7%	91%	1%	2%	95%	2%	
	APP/DEPART	0	/	7	21	/	2	82	/	76	42	/	60	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	10	2	37	1	0	23	1	74
	APPROACH %	0%	0%	0%	0%	0%	100%	5%	93%	3%	0%	96%	4%	
	PEAK HR FACTOR		0.000			0.500			0.769			0.857		0.974
	APP/DEPART	0	/	3	10	/	1	40	/	37	24	/	33	0
PM	4:00 PM	0	0	0	0	0	2	1	9	0	0	3	0	15
	4:15 PM	0	0	0	0	0	2	3	7	0	0	7	0	19
	4:30 PM	0	0	0	0	0	0	1	9	0	0	3	0	13
	4:45 PM	0	0	0	0	0	3	1	9	0	0	3	0	16
	5:00 PM	0	0	0	0	0	1	7	9	1	0	6	0	24
	5:15 PM	1	0	0	0	1	2	6	12	0	0	4	0	26
	5:30 PM	0	0	1	0	0	1	3	6	0	0	3	1	15
	5:45 PM	0	0	1	0	0	1	2	10	0	0	4	1	19
	VOLUMES	1	0	2	0	1	12	24	71	1	0	33	2	147
	APPROACH %	33%	0%	67%	0%	8%	92%	25%	74%	1%	0%	94%	6%	
	APP/DEPART	3	/	26	13	/	2	96	/	73	35	/	46	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	1	0	1	0	1	7	17	36	1	0	16	1	81
	APPROACH %	50%	0%	50%	0%	13%	88%	31%	67%	2%	0%	94%	6%	
	PEAK HR FACTOR		0.500			0.667			0.750			0.708		0.779
	APP/DEPART	2	/	18	8	/	2	54	/	37	17	/	24	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR X	SRR X	ERR X	WRR X
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0		0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0		0	0	0	0

Sherman Rd

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

Sherman Rd

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

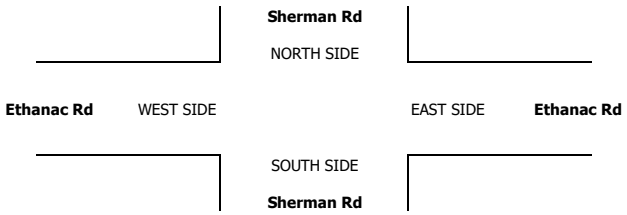
DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Sherman Rd	LOCATION #:	5
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS					RTOR			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL	NRR X	SRR X	ERR X	WRR X
AM	7:00 AM	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	1	1	2	0	0	0	0	4	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	1	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	3	0	0	5	0	8	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	1	0	0	0	3	0	4	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	1	3	0	0	2	0	6	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	1	0	4	0	0	3	0	8	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	3	4	13	0	0	18	0	38	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	100%	24%	76%	0%	0%	100%	0%										
	APP/DEPART	0	/	4	3	/	0	17	/	13	18	/	21	0									
	BEGIN PEAK HR		7:15 AM																				
	VOLUMES	0	0	0	0	0	2	1	6	0	0	9	0	18	0	0	0	0		0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	100%	14%	86%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.000			0.500			0.583			0.450		0.563									
	APP/DEPART	0	/	1	2	/	0	7	/	6	9	/	11	0									
PM	4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	2	1	2	0	0	1	0	6	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	1	0	1	1	0	0	1	0	4	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	1	2	2	10	0	0	5	0	20	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	33%	67%	17%	83%	0%	0%	100%	0%										
	APP/DEPART	0	/	2	3	/	1	12	/	10	5	/	7	0									
	BEGIN PEAK HR		4:45 PM																				
	VOLUMES	0	0	0	0	0	0	0	5	0	0	2	0	7	0	0	0	0		0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.000			0.000			0.313			0.500		0.438									
	APP/DEPART	0	/	0	0	/	0	5	/	5	2	/	2	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Sherman Rd	LOCATION #:	5
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	3	1	5	0	0	1	0	10
	7:15 AM	0	0	0	0	0	0	0	2	0	0	2	0	4
	7:30 AM	0	0	0	0	0	0	0	2	0	0	3	0	5
	7:45 AM	0	0	0	0	0	0	0	2	1	0	1	0	4
	8:00 AM	0	0	0	0	0	2	0	2	1	0	2	0	7
	8:15 AM	2	0	0	0	0	0	0	6	0	0	1	0	9
	8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
	VOLUMES	2	0	0	0	0	5	1	23	2	0	10	0	43
	APPROACH %	100%	0%	0%	0%	0%	100%	4%	88%	8%	0%	100%	0%	
	APP/DEPART	2	/	1	5	/	2	26	/	23	10	/	17	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	0	0	0	0	0	2	0	8	2	0	8	0	20
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	80%	20%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.250			0.833			0.667			0.714
	APP/DEPART	0	/	0	2	/	2	10	/	8	8	/	10	0
PM	4:00 PM	0	0	0	0	0	0	0	0	2	0	1	0	3
	4:15 PM	0	0	0	0	0	3	1	1	0	0	2	0	7
	4:30 PM	0	0	0	0	0	0	0	1	2	1	0	0	4
	4:45 PM	1	0	0	0	0	0	2	2	0	0	0	0	5
	5:00 PM	0	0	0	0	0	0	0	6	0	0	0	0	6
	5:15 PM	0	0	0	0	0	0	0	4	0	0	1	0	5
	5:30 PM	0	0	0	0	0	0	1	2	0	0	0	0	3
	5:45 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
	VOLUMES	1	0	0	0	0	3	4	18	4	1	5	0	36
	APPROACH %	100%	0%	0%	0%	0%	100%	15%	69%	15%	17%	83%	0%	
	APP/DEPART	1	/	4	3	/	5	26	/	18	6	/	9	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	1	0	0	0	0	0	3	14	0	0	1	0	19
	APPROACH %	100%	0%	0%	0%	0%	0%	18%	82%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.250			0.000			0.708			0.250			0.792
	APP/DEPART	1	/	3	0	/	0	17	/	14	1	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Sherman Rd

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

Sherman Rd

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Sherman Rd	LOCATION #:	5
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	1	0	0	1	0	0	0	2
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	0	/	0	1	/	1	1	/	0	0	/	1	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	1	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250
	APP/DEPART	0	/	0	0	/	1	1	/	0	0	/	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Menifee	PROJECT #:	SC4549
4/9/24	NORTH & SOUTH:	Sherman Rd	LOCATION #:	5
TUESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

CLASS 6: BUSES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
	8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	7	0	0	2	0	9
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	7	/	7	2	/	2	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	6	0	0	1	0	7
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.500			0.250		0.583
	APP/DEPART	0	/	0	0	/	0	6	/	6	1	/	1	0
PM	4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	0	0	0	0	0	0	0	3	0	0	2	0	5
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	3	/	3	2	/	2	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	0	0	0	0	1	0	0	1	0	2
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.250		0.500
	APP/DEPART	0	/	0	0	/	0	1	/	1	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Sherman Rd

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

Sherman Rd

A102423

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 09, 2024 **CITY:** Menifee

JOB #: SC4549 **LOCATION:** CLASS1 Ethanac Rd west of Encanto Dr

AM	EB						
TIME	1	2	3	4	5	6	TOTAL
0:00	12	0	0	0	0	0	12
0:15	11	0	0	0	0	0	11
0:30	12	0	0	1	0	0	13
0:45	12	0	0	0	0	0	12
1:00	20	0	0	0	0	0	20
1:15	12	0	0	0	0	0	12
1:30	8	0	0	0	0	0	8
1:45	10	1	0	0	0	0	11
2:00	16	0	0	1	0	0	17
2:15	5	1	0	1	0	0	7
2:30	8	0	0	0	0	0	8
2:45	16	1	0	2	0	0	19
3:00	8	1	0	0	0	0	9
3:15	12	3	0	0	0	0	15
3:30	11	0	0	0	0	0	11
3:45	23	0	0	2	0	0	25
4:00	15	2	0	1	0	0	18
4:15	19	2	1	1	0	0	23
4:30	34	1	0	4	0	0	39
4:45	40	1	0	1	0	0	42
5:00	26	2	0	2	0	0	30
5:15	43	5	0	1	0	0	49
5:30	53	7	0	3	0	0	63
5:45	95	5	2	4	0	0	106
6:00	91	7	2	4	0	0	104
6:15	97	8	0	5	0	0	110
6:30	99	8	2	5	0	0	114
6:45	122	7	2	5	0	0	136
7:00	104	17	3	6	0	1	131
7:15	161	9	2	1	1	2	176
7:30	172	10	1	2	0	0	185
7:45	147	13	1	5	0	4	170
8:00	117	12	4	5	0	1	139
8:15	97	12	6	5	1	0	121
8:30	114	9	5	2	0	0	130
8:45	100	12	6	5	0	0	123
9:00	76	13	0	14	0	2	105
9:15	85	9	2	4	0	0	100
9:30	91	14	2	6	0	0	113
9:45	83	13	4	6	0	0	106
10:00	87	11	4	5	0	0	107
10:15	74	19	3	6	0	0	102
10:30	74	10	2	5	0	0	91
10:45	77	8	5	6	0	1	97
11:00	75	16	5	12	0	1	109
11:15	87	14	3	4	0	0	108
11:30	107	11	0	5	0	0	123
11:45	119	16	5	4	0	0	144
TOTAL	2,977	310	72	151	2	12	3,524

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	670

PM	EB						
Time	1	2	3	4	5	6	TOTAL
12:00	96	11	2	2	0	0	111
12:15	116	21	4	10	0	1	152
12:30	103	9	7	4	1	0	124
12:45	112	7	4	4	0	0	127
13:00	144	10	2	8	0	0	164
13:15	151	12	5	5	0	1	174
13:30	182	20	5	13	0	1	221
13:45	137	13	6	3	0	0	159
14:00	156	20	5	10	0	0	191
14:15	139	14	4	7	0	1	165
14:30	130	14	9	7	0	2	162
14:45	133	19	3	10	0	0	165
15:00	162	16	3	7	0	0	188
15:15	168	12	3	8	0	1	192
15:30	183	13	6	7	0	0	209
15:45	165	12	2	12	0	1	192
16:00	182	13	1	5	0	2	203
16:15	187	15	2	3	0	0	207
16:30	190	12	1	8	0	0	211
16:45	204	14	0	6	0	2	226
17:00	194	21	4	7	0	0	226
17:15	205	20	5	7	0	0	237
17:30	233	12	2	3	0	0	250
17:45	214	14	0	3	0	0	231
18:00	184	14	1	4	0	0	203
18:15	161	17	1	3	0	0	182
18:30	156	6	0	4	0	0	166
18:45	133	10	1	0	0	1	145
19:00	154	11	0	0	0	2	167
19:15	122	5	0	1	0	0	128
19:30	109	3	0	3	0	0	115
19:45	106	7	0	0	0	0	113
20:00	101	3	0	1	0	0	105
20:15	100	5	0	0	0	0	105
20:30	83	1	0	1	0	0	85
20:45	86	2	0	1	0	0	89
21:00	62	1	0	0	0	0	63
21:15	60	5	0	4	0	0	69
21:30	50	0	0	0	0	0	50
21:45	41	4	0	1	0	0	46
22:00	54	0	0	0	0	0	54
22:15	36	3	0	1	0	0	40
22:30	31	0	0	1	0	0	32
22:45	29	0	0	1	0	0	30
23:00	35	0	0	1	0	0	36
23:15	25	0	0	0	0	0	25
23:30	24	2	0	0	0	0	26
23:45	23	0	0	0	0	0	23
TOTAL	5,851	443	88	186	1	15	6,584

AM PEAK HOUR	5:00 PM
AM PEAK VOLUME	944

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	8,828	753	160	337	3	27	10,108
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	87.3%	7.4%	1.6%	3.3%	0.0%	0.3%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	15,595	1,373	272	693	5	45	17,983
CLASS 6	Buses	% OF TOTAL	86.7%	7.6%	1.5%	3.9%	0.0%	0.3%	100.0%

A102423

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 09, 2024
JOB #: SC4549
CITY: Menifee
LOCATION: CLASS1 Ethanac Rd west of Encanto Dr

AM	WB						
TIME	1	2	3	4	5	6	TOTAL
0:00	11	0	0	0	0	0	11
0:15	8	0	0	0	0	0	8
0:30	4	2	0	1	0	0	7
0:45	7	0	1	0	0	0	8
1:00	5	0	0	0	0	0	5
1:15	11	0	0	0	0	0	11
1:30	5	0	0	1	0	0	6
1:45	8	0	0	0	0	0	8
2:00	3	0	0	1	0	0	4
2:15	10	0	0	1	0	0	11
2:30	4	0	0	2	0	0	6
2:45	7	0	0	0	0	0	7
3:00	8	0	0	0	0	0	8
3:15	18	1	1	1	0	0	21
3:30	16	0	0	4	0	0	20
3:45	24	1	0	0	0	0	25
4:00	21	7	0	9	0	0	37
4:15	33	3	0	6	0	0	42
4:30	34	5	1	8	0	0	48
4:45	44	1	0	4	0	0	49
5:00	40	4	0	5	0	0	49
5:15	60	9	1	5	0	0	75
5:30	67	11	1	10	0	0	89
5:45	73	8	0	3	0	0	84
6:00	80	5	5	6	0	0	96
6:15	67	9	2	3	0	0	81
6:30	79	11	2	6	0	0	98
6:45	97	6	3	9	0	0	115
7:00	97	12	6	5	0	0	120
7:15	99	16	3	5	0	1	124
7:30	118	22	2	7	0	1	150
7:45	127	6	2	7	0	0	142
8:00	124	13	3	8	0	1	149
8:15	144	15	2	5	0	0	166
8:30	101	7	2	6	1	1	118
8:45	77	8	0	7	0	0	92
9:00	87	13	0	4	0	0	104
9:15	77	7	4	6	0	0	94
9:30	71	13	4	6	0	0	94
9:45	68	14	5	8	0	0	95
10:00	72	15	1	5	0	0	93
10:15	71	4	3	10	0	0	88
10:30	69	10	4	6	0	1	90
10:45	86	9	3	7	0	0	105
11:00	83	14	1	11	0	1	110
11:15	87	9	0	9	0	1	106
11:30	86	11	4	7	0	0	108
11:45	83	14	2	10	0	0	109
TOTAL	2,671	315	68	224	1	7	3,286

AM PEAK HOUR	7:30 AM
AM PEAK VOLUME	607

PM	WB						
Time	1	2	3	4	5	6	TOTAL
12:00	76	17	2	8	0	0	103
12:15	85	16	0	5	0	0	106
12:30	91	10	1	6	0	0	108
12:45	87	11	2	10	0	0	110
13:00	92	4	3	3	0	0	102
13:15	106	13	2	7	0	0	128
13:30	65	9	1	5	0	0	80
13:45	115	7	1	8	0	0	131
14:00	102	12	3	4	0	4	125
14:15	115	13	4	5	0	0	137
14:30	131	13	2	8	0	0	154
14:45	141	6	3	6	0	0	156
15:00	146	12	1	2	0	1	162
15:15	134	14	0	4	0	1	153
15:30	141	6	2	7	0	0	156
15:45	139	18	0	3	0	3	163
16:00	175	8	1	1	0	1	186
16:15	125	11	5	9	0	0	150
16:30	119	10	3	1	0	0	133
16:45	127	10	1	2	0	0	140
17:00	135	8	2	1	0	0	146
17:15	142	9	0	3	0	1	155
17:30	119	7	0	4	1	0	131
17:45	109	7	2	2	0	0	120
18:00	127	7	0	1	0	0	135
18:15	122	4	0	1	0	0	127
18:30	118	4	0	3	0	0	125
18:45	89	6	1	2	0	0	98
19:00	87	6	0	2	0	0	95
19:15	86	4	0	0	0	0	90
19:30	84	5	1	1	0	0	91
19:45	83	3	1	0	0	0	87
20:00	69	1	0	2	0	0	72
20:15	68	2	0	1	0	0	71
20:30	63	2	0	0	0	0	65
20:45	47	2	0	1	0	0	50
21:00	30	2	0	2	0	0	34
21:15	23	2	0	0	0	0	25
21:30	31	1	0	0	0	0	32
21:45	27	1	0	0	0	0	28
22:00	26	0	0	2	0	0	28
22:15	21	1	0	0	0	0	22
22:30	25	0	0	0	0	0	25
22:45	11	0	0	0	0	0	11
23:00	16	0	0	0	0	0	16
23:15	10	1	0	0	0	0	11
23:30	11	0	0	0	0	0	11
23:45	5	0	0	0	0	0	5
TOTAL	4,096	305	44	132	1	11	4,589

AM PEAK HOUR	3:15 PM
AM PEAK VOLUME	658

TOTAL: AM+PM	6,767	620	112	356	2	18	7,875
% OF TOTAL	85.9%	7.9%	1.4%	4.5%	0.0%	0.2%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A102423

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 09, 2024 **CITY:** Menifee

JOB #: SC4549 **LOCATION:** CLASS1 Ethanac Rd west of Encanto Dr

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	23	0	0	0	0	0	23	12:00	172	28	4	10	0	0	214
0:15	19	0	0	0	0	0	19	12:15	201	37	4	15	0	1	258
0:30	16	2	0	2	0	0	20	12:30	194	19	8	10	1	0	232
0:45	19	0	1	0	0	0	20	12:45	199	18	6	14	0	0	237
1:00	25	0	0	0	0	0	25	13:00	236	14	5	11	0	0	266
1:15	23	0	0	0	0	0	23	13:15	257	25	7	12	0	1	302
1:30	13	0	0	1	0	0	14	13:30	247	29	6	18	0	1	301
1:45	18	1	0	0	0	0	19	13:45	252	20	7	11	0	0	290
2:00	19	0	0	2	0	0	21	14:00	258	32	8	14	0	4	316
2:15	15	1	0	2	0	0	18	14:15	254	27	8	12	0	1	302
2:30	12	0	0	2	0	0	14	14:30	261	27	11	15	0	2	316
2:45	23	1	0	2	0	0	26	14:45	274	25	6	16	0	0	321
3:00	16	1	0	0	0	0	17	15:00	308	28	4	9	0	1	350
3:15	30	4	1	1	0	0	36	15:15	302	26	3	12	0	2	345
3:30	27	0	0	4	0	0	31	15:30	324	19	8	14	0	0	365
3:45	47	1	0	2	0	0	50	15:45	304	30	2	15	0	4	355
4:00	36	9	0	10	0	0	55	16:00	357	21	2	6	0	3	389
4:15	52	5	1	7	0	0	65	16:15	312	26	7	12	0	0	357
4:30	68	6	1	12	0	0	87	16:30	309	22	4	9	0	0	344
4:45	84	2	0	5	0	0	91	16:45	331	24	1	8	0	2	366
5:00	66	6	0	7	0	0	79	17:00	329	29	6	8	0	0	372
5:15	103	14	1	6	0	0	124	17:15	347	29	5	10	0	1	392
5:30	120	18	1	13	0	0	152	17:30	352	19	2	7	1	0	381
5:45	168	13	2	7	0	0	190	17:45	323	21	2	5	0	0	351
6:00	171	12	7	10	0	0	200	18:00	311	21	1	5	0	0	338
6:15	164	17	2	8	0	0	191	18:15	283	21	1	4	0	0	309
6:30	178	19	4	11	0	0	212	18:30	274	10	0	7	0	0	291
6:45	219	13	5	14	0	0	251	18:45	222	16	2	2	0	1	243
7:00	201	29	9	11	0	1	251	19:00	241	17	0	2	0	2	262
7:15	260	25	5	6	1	3	300	19:15	208	9	0	1	0	0	218
7:30	290	32	3	9	0	1	335	19:30	193	8	1	4	0	0	206
7:45	274	19	3	12	0	4	312	19:45	189	10	1	0	0	0	200
8:00	241	25	7	13	0	2	288	20:00	170	4	0	3	0	0	177
8:15	241	27	8	10	1	0	287	20:15	168	7	0	1	0	0	176
8:30	215	16	7	8	1	1	248	20:30	146	3	0	1	0	0	150
8:45	177	20	6	12	0	0	215	20:45	133	4	0	2	0	0	139
9:00	163	26	0	18	0	2	209	21:00	92	3	0	2	0	0	97
9:15	162	16	6	10	0	0	194	21:15	83	7	0	4	0	0	94
9:30	162	27	6	12	0	0	207	21:30	81	1	0	0	0	0	82
9:45	151	27	9	14	0	0	201	21:45	68	5	0	1	0	0	74
10:00	159	26	5	10	0	0	200	22:00	80	0	0	2	0	0	82
10:15	145	23	6	16	0	0	190	22:15	57	4	0	1	0	0	62
10:30	143	20	6	11	0	1	181	22:30	56	0	0	1	0	0	57
10:45	163	17	8	13	0	1	202	22:45	40	0	0	1	0	0	41
11:00	158	30	6	23	0	2	219	23:00	51	0	0	1	0	0	52
11:15	174	23	3	13	0	1	214	23:15	35	1	0	0	0	0	36
11:30	193	22	4	12	0	0	231	23:30	35	2	0	0	0	0	37
11:45	202	30	7	14	0	0	253	23:45	28	0	0	0	0	0	28
TOTAL	5,648	625	140	375	3	19	6,810	TOTAL	9,947	748	132	318	2	26	11,173

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	1,235

PM PEAK HOUR	4:45 PM
PM PEAK VOLUME	1,511

TOTAL: AM+PM	15,595	1,373	272	693	5	45	17,983
% OF TOTAL	86.7%	7.6%	1.5%	3.9%	0.0%	0.3%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A102423

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 09, 2024 **CITY:** Menifee

JOB #: SC4549 **LOCATION:** CLASS2 Ethanac Rd west of Sherman Rd

AM	EB						
TIME	1	2	3	4	5	6	TOTAL
0:00	13	0	0	0	0	0	13
0:15	9	0	0	1	0	0	10
0:30	7	0	0	1	0	0	8
0:45	8	0	0	0	0	0	8
1:00	20	0	0	0	0	0	20
1:15	12	1	0	0	0	0	13
1:30	6	0	0	0	0	0	6
1:45	7	0	0	0	0	0	7
2:00	11	0	0	1	0	0	12
2:15	5	1	0	1	0	0	7
2:30	7	1	0	0	0	0	8
2:45	9	2	0	0	0	0	11
3:00	6	0	0	0	0	0	6
3:15	5	1	0	0	0	0	6
3:30	5	0	0	0	0	0	5
3:45	13	0	0	2	0	0	15
4:00	12	0	0	1	0	0	13
4:15	15	0	0	1	0	0	16
4:30	27	0	0	3	0	0	30
4:45	29	2	1	1	0	0	33
5:00	24	4	0	2	0	0	30
5:15	29	4	0	1	0	0	34
5:30	48	5	0	2	0	0	55
5:45	75	5	1	3	0	0	84
6:00	77	6	2	4	0	0	89
6:15	65	10	1	4	0	0	80
6:30	82	11	0	6	0	0	99
6:45	85	11	1	4	0	0	101
7:00	80	13	1	6	0	1	101
7:15	139	9	3	2	1	2	156
7:30	162	9	0	2	0	0	173
7:45	135	13	3	3	0	3	157
8:00	100	9	1	3	0	1	114
8:15	74	10	1	6	0	0	91
8:30	84	10	4	1	0	0	99
8:45	81	9	4	3	0	0	97
9:00	59	9	2	7	0	1	78
9:15	67	8	3	4	0	0	82
9:30	67	9	0	7	0	0	83
9:45	71	16	3	4	0	0	94
10:00	63	8	2	8	0	0	81
10:15	69	15	2	6	0	0	92
10:30	67	8	3	2	0	0	80
10:45	53	1	0	6	1	1	62
11:00	63	12	4	6	0	0	85
11:15	71	8	3	3	0	0	85
11:30	85	3	2	2	0	0	92
11:45	103	6	1	2	0	0	112
TOTAL	2,404	249	48	121	2	9	2,833

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	600

PM	EB						
Time	1	2	3	4	5	6	TOTAL
12:00	80	9	2	3	0	0	94
12:15	87	11	3	11	0	0	112
12:30	81	8	1	6	0	0	96
12:45	101	6	2	3	0	0	112
13:00	126	9	0	8	0	0	143
13:15	129	6	0	4	0	1	140
13:30	141	17	2	9	0	1	170
13:45	129	8	1	4	0	0	142
14:00	133	12	6	6	0	0	157
14:15	115	9	2	6	0	0	132
14:30	119	15	4	8	0	1	147
14:45	119	8	5	5	0	1	138
15:00	132	15	2	3	0	0	152
15:15	149	12	3	3	0	1	168
15:30	155	16	1	8	0	0	180
15:45	150	9	1	5	0	1	166
16:00	157	10	1	2	0	1	171
16:15	167	10	3	2	0	0	182
16:30	175	10	1	3	0	0	189
16:45	182	10	0	4	0	1	197
17:00	157	17	1	6	0	0	181
17:15	195	18	4	4	0	0	221
17:30	200	9	0	3	0	0	212
17:45	187	12	2	2	0	1	204
18:00	168	9	0	4	0	0	181
18:15	146	16	0	2	0	0	164
18:30	133	3	0	2	0	0	138
18:45	119	7	0	0	1	0	127
19:00	120	6	0	2	0	2	130
19:15	104	9	0	1	0	0	114
19:30	100	3	0	1	0	0	104
19:45	96	7	0	0	0	0	103
20:00	87	3	0	1	0	0	91
20:15	88	5	0	0	0	0	93
20:30	80	5	0	1	0	0	86
20:45	77	3	0	0	0	0	80
21:00	52	2	1	0	0	0	55
21:15	60	3	0	2	0	0	65
21:30	50	3	0	0	0	0	53
21:45	35	1	0	0	0	0	36
22:00	43	1	0	1	0	0	45
22:15	25	4	0	1	0	0	30
22:30	29	0	0	1	0	0	30
22:45	28	1	0	2	0	0	31
23:00	28	0	0	1	0	0	29
23:15	22	0	0	0	0	0	22
23:30	17	2	0	0	0	0	19
23:45	20	0	0	0	0	0	20
TOTAL	5,093	359	48	140	1	11	5,652

AM PEAK HOUR	5:15 PM
AM PEAK VOLUME	818

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

TOTAL: AM+PM	7,497	608	96	261	3	20	8,485
% OF TOTAL	88.4%	7.2%	1.1%	3.1%	0.0%	0.2%	100.0%
TOTAL: ALL	12,812	1,037	206	458	8	35	14,556
% OF TOTAL	88.0%	7.1%	1.4%	3.1%	0.1%	0.2%	100.0%

A102423

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 09, 2024
JOB #: SC4549
CITY: Menifee
LOCATION: CLASS2 Ethanac Rd west of Sherman Rd

AM TIME	WB 1	2	3	4	5	6	TOTAL
0:00	6	0	0	0	0	0	6
0:15	2	0	0	0	0	0	2
0:30	3	1	0	0	0	0	4
0:45	5	0	0	1	0	0	6
1:00	5	0	0	1	0	0	6
1:15	6	0	0	0	0	0	6
1:30	1	0	0	1	0	0	2
1:45	4	0	0	0	0	0	4
2:00	3	0	0	1	0	0	4
2:15	5	1	0	1	0	0	7
2:30	2	0	0	2	0	0	4
2:45	6	0	0	0	0	0	6
3:00	9	0	0	2	0	0	11
3:15	10	0	0	1	0	0	11
3:30	15	0	0	3	0	0	18
3:45	20	0	1	1	0	0	22
4:00	18	3	0	1	0	0	22
4:15	25	1	0	1	0	0	27
4:30	25	2	0	8	0	0	35
4:45	29	1	0	1	0	0	31
5:00	36	5	0	5	0	0	46
5:15	50	6	1	3	0	0	60
5:30	47	7	0	6	0	0	60
5:45	58	11	2	2	0	0	73
6:00	70	3	3	4	0	0	80
6:15	65	6	3	1	0	0	75
6:30	78	9	0	3	0	0	90
6:45	83	6	3	5	0	0	97
7:00	97	7	1	4	0	0	109
7:15	87	10	1	2	0	0	100
7:30	105	10	3	3	0	0	121
7:45	128	6	5	1	0	0	140
8:00	107	7	2	4	0	1	121
8:15	95	10	3	3	0	0	111
8:30	103	5	2	0	1	1	112
8:45	73	5	4	0	0	0	82
9:00	63	1	2	7	0	0	73
9:15	67	8	5	1	0	0	81
9:30	49	5	4	6	0	0	64
9:45	60	12	8	4	0	0	84
10:00	55	10	2	2	0	0	69
10:15	55	2	1	6	0	0	64
10:30	44	8	0	3	0	1	56
10:45	75	9	2	5	0	1	92
11:00	67	9	4	4	0	0	84
11:15	80	4	1	6	0	0	91
11:30	64	8	4	3	0	0	79
11:45	63	6	1	1	2	0	73
TOTAL	2,223	204	68	119	3	4	2,621

AM PEAK HOUR	7:30 AM
AM PEAK VOLUME	493

PM Time	WB 1	2	3	4	5	6	TOTAL
12:00	66	13	5	2	0	0	86
12:15	55	7	2	2	0	0	66
12:30	73	7	0	6	0	0	86
12:45	69	6	3	3	0	0	81
13:00	76	6	0	3	0	0	85
13:15	62	9	0	4	0	0	75
13:30	55	9	2	5	0	0	71
13:45	85	5	4	2	0	2	98
14:00	85	4	1	6	0	1	97
14:15	112	6	3	4	0	0	125
14:30	88	5	3	4	0	0	100
14:45	122	6	4	3	0	1	136
15:00	122	10	3	2	0	0	137
15:15	98	18	1	4	0	1	122
15:30	97	9	1	1	0	0	108
15:45	107	17	0	3	0	4	131
16:00	101	5	1	1	1	1	110
16:15	86	9	3	5	0	0	103
16:30	72	3	0	0	0	0	75
16:45	104	6	1	1	0	0	112
17:00	102	7	1	0	0	0	110
17:15	104	7	0	1	0	1	113
17:30	85	4	0	0	0	0	89
17:45	91	5	1	1	0	0	98
18:00	83	5	0	0	1	0	89
18:15	96	6	0	2	0	0	104
18:30	73	2	1	2	0	0	78
18:45	57	3	1	0	0	0	61
19:00	65	5	1	1	0	0	72
19:15	79	2	0	0	0	0	81
19:30	67	2	0	1	0	0	70
19:45	67	3	0	2	0	0	72
20:00	66	2	0	2	0	0	70
20:15	48	2	0	1	0	0	51
20:30	53	3	0	0	0	0	56
20:45	41	2	0	0	0	0	43
21:00	33	0	0	1	0	0	34
21:15	11	1	0	0	0	0	12
21:30	25	2	0	0	0	0	27
21:45	23	0	0	1	0	0	24
22:00	15	0	0	0	0	0	15
22:15	16	0	0	0	0	0	16
22:30	12	0	0	1	0	0	13
22:45	11	0	0	0	0	0	11
23:00	16	0	0	0	0	0	16
23:15	6	1	0	0	0	0	7
23:30	8	1	0	1	0	0	10
23:45	4	0	0	0	0	0	4
TOTAL	3,092	225	42	78	2	11	3,450

AM PEAK HOUR	2:45 PM
AM PEAK VOLUME	503

TOTAL: AM+PM		5,315	429	110	197	5	15	6,071
% OF TOTAL		87.5%	7.1%	1.8%	3.2%	0.1%	0.2%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A102423

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 09, 2024 **CITY:** Menifee

JOB #: SC4549 **LOCATION:** CLASS2 Ethanac Rd west of Sherman Rd

AM	COMBINED						
TIME	1	2	3	4	5	6	TOTAL
0:00	19	0	0	0	0	0	19
0:15	11	0	0	1	0	0	12
0:30	10	1	0	1	0	0	12
0:45	13	0	0	1	0	0	14
1:00	25	0	0	1	0	0	26
1:15	18	1	0	0	0	0	19
1:30	7	0	0	1	0	0	8
1:45	11	0	0	0	0	0	11
2:00	14	0	0	2	0	0	16
2:15	10	2	0	2	0	0	14
2:30	9	1	0	2	0	0	12
2:45	15	2	0	0	0	0	17
3:00	15	0	0	2	0	0	17
3:15	15	1	0	1	0	0	17
3:30	20	0	0	3	0	0	23
3:45	33	0	1	3	0	0	37
4:00	30	3	0	2	0	0	35
4:15	40	1	0	2	0	0	43
4:30	52	2	0	11	0	0	65
4:45	58	3	1	2	0	0	64
5:00	60	9	0	7	0	0	76
5:15	79	10	1	4	0	0	94
5:30	95	12	0	8	0	0	115
5:45	133	16	3	5	0	0	157
6:00	147	9	5	8	0	0	169
6:15	130	16	4	5	0	0	155
6:30	160	20	0	9	0	0	189
6:45	168	17	4	9	0	0	198
7:00	177	20	2	10	0	1	210
7:15	226	19	4	4	1	2	256
7:30	267	19	3	5	0	0	294
7:45	263	19	8	4	0	3	297
8:00	207	16	3	7	0	2	235
8:15	169	20	4	9	0	0	202
8:30	187	15	6	1	1	1	211
8:45	154	14	8	3	0	0	179
9:00	122	10	4	14	0	1	151
9:15	134	16	8	5	0	0	163
9:30	116	14	4	13	0	0	147
9:45	131	28	11	8	0	0	178
10:00	118	18	4	10	0	0	150
10:15	124	17	3	12	0	0	156
10:30	111	16	3	5	0	1	136
10:45	128	10	2	11	1	2	154
11:00	130	21	8	10	0	0	169
11:15	151	12	4	9	0	0	176
11:30	149	11	6	5	0	0	171
11:45	166	12	2	3	2	0	185
TOTAL	4,627	453	116	240	5	13	5,454

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	1,082

PM	COMBINED						
Time	1	2	3	4	5	6	TOTAL
12:00	146	22	7	5	0	0	180
12:15	142	18	5	13	0	0	178
12:30	154	15	1	12	0	0	182
12:45	170	12	5	6	0	0	193
13:00	202	15	0	11	0	0	228
13:15	191	15	0	8	0	1	215
13:30	196	26	4	14	0	1	241
13:45	214	13	5	6	0	2	240
14:00	218	16	7	12	0	1	254
14:15	227	15	5	10	0	0	257
14:30	207	20	7	12	0	1	247
14:45	241	14	9	8	0	2	274
15:00	254	25	5	5	0	0	289
15:15	247	30	4	7	0	2	290
15:30	252	25	2	9	0	0	288
15:45	257	26	1	8	0	5	297
16:00	258	15	2	3	1	2	281
16:15	253	19	6	7	0	0	285
16:30	247	13	1	3	0	0	264
16:45	286	16	1	5	0	1	309
17:00	259	24	2	6	0	0	291
17:15	299	25	4	5	0	1	334
17:30	285	13	0	3	0	0	301
17:45	278	17	3	3	0	1	302
18:00	251	14	0	4	1	0	270
18:15	242	22	0	4	0	0	268
18:30	206	5	1	4	0	0	216
18:45	176	10	1	0	1	0	188
19:00	185	11	1	3	0	2	202
19:15	183	11	0	1	0	0	195
19:30	167	5	0	2	0	0	174
19:45	163	10	0	2	0	0	175
20:00	153	5	0	3	0	0	161
20:15	136	7	0	1	0	0	144
20:30	133	8	0	1	0	0	142
20:45	118	5	0	0	0	0	123
21:00	85	2	1	1	0	0	89
21:15	71	4	0	2	0	0	77
21:30	75	5	0	0	0	0	80
21:45	58	1	0	1	0	0	60
22:00	58	1	0	1	0	0	60
22:15	41	4	0	1	0	0	46
22:30	41	0	0	2	0	0	43
22:45	39	1	0	2	0	0	42
23:00	44	0	0	1	0	0	45
23:15	28	1	0	0	0	0	29
23:30	25	3	0	1	0	0	29
23:45	24	0	0	0	0	0	24
TOTAL	8,185	584	90	218	3	22	9,102

AM PEAK HOUR	4:45 PM
AM PEAK VOLUME	1,235

TOTAL: AM+PM		12,812	1,037	206	458	8	35	14,556
% OF TOTAL		88.0%	7.1%	1.4%	3.1%	0.1%	0.2%	100.0%
CLASS 1	PASSENGER VEHICLES							
CLASS 2	2-AXLE TRUCKS							
CLASS 3	3-AXLE TRUCKS							
CLASS 4	4 OR MORE AXLE TRUCKS							
CLASS 5	RV							
CLASS 6	Buses							

A102423

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 09, 2024 **CITY:** Menifee

JOB #: SC4549 **LOCATION:** CLASS3 Sherman Rd south of Ethanac Rd

AM	NB						
TIME	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0
0:15	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0
1:30	0	0	0	1	0	0	1
1:45	0	0	0	0	0	0	0
2:00	1	0	0	1	0	0	2
2:15	1	0	0	1	0	0	2
2:30	0	0	0	1	0	0	1
2:45	0	0	0	0	0	0	0
3:00	0	0	0	2	0	0	2
3:15	0	0	0	0	0	0	0
3:30	0	0	0	3	0	0	3
3:45	0	0	0	1	0	0	1
4:00	0	0	0	2	0	0	2
4:15	0	0	0	0	0	0	0
4:30	0	0	0	2	0	0	2
4:45	0	0	0	0	0	0	0
5:00	0	1	0	2	0	0	3
5:15	1	1	1	1	0	0	4
5:30	2	0	0	1	0	0	3
5:45	2	2	0	3	0	0	7
6:00	1	0	0	1	0	0	2
6:15	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0
6:45	0	0	0	2	0	0	2
7:00	2	0	0	0	0	0	2
7:15	4	0	0	0	0	0	4
7:30	1	0	0	0	0	0	1
7:45	3	0	0	0	0	0	3
8:00	2	0	0	0	0	0	2
8:15	0	0	0	2	0	0	2
8:30	1	0	0	0	0	0	1
8:45	0	0	0	0	0	0	0
9:00	2	0	0	0	0	0	2
9:15	1	0	0	1	0	0	2
9:30	0	0	0	1	0	0	1
9:45	5	2	1	2	0	0	10
10:00	3	4	0	1	0	0	8
10:15	2	0	0	0	0	0	2
10:30	2	1	0	0	0	0	3
10:45	3	1	0	1	0	0	5
11:00	1	1	0	0	0	0	2
11:15	5	2	0	1	0	0	8
11:30	3	0	0	1	0	0	4
11:45	1	0	0	0	0	0	1
TOTAL	49	15	2	34	0	0	100

AM PEAK HOUR	9:45 AM
AM PEAK VOLUME	23

PM	NB						
Time	1	2	3	4	5	6	TOTAL
12:00	7	0	2	0	0	0	9
12:15	2	0	0	0	0	0	2
12:30	2	0	0	2	0	0	4
12:45	2	0	0	1	0	0	3
13:00	3	0	0	0	0	0	3
13:15	4	1	0	0	0	0	5
13:30	1	1	0	2	0	0	4
13:45	3	0	0	0	0	0	3
14:00	4	0	0	0	0	0	4
14:15	2	1	1	0	0	0	4
14:30	1	1	0	0	0	0	2
14:45	1	0	0	0	0	0	1
15:00	4	2	0	0	0	0	6
15:15	6	1	0	1	0	0	8
15:30	6	1	0	0	0	0	7
15:45	1	1	0	1	0	0	3
16:00	2	0	0	0	0	0	2
16:15	7	0	0	0	0	0	7
16:30	4	0	0	0	0	0	4
16:45	6	0	0	1	0	0	7
17:00	4	0	0	0	0	0	4
17:15	7	1	0	0	0	0	8
17:30	6	1	0	0	0	0	7
17:45	6	1	0	0	0	0	7
18:00	5	0	0	0	0	0	5
18:15	8	1	0	2	0	0	11
18:30	5	0	0	1	0	0	6
18:45	4	1	0	0	0	0	5
19:00	14	1	0	0	0	0	15
19:15	1	0	0	0	0	0	1
19:30	1	0	0	1	0	0	2
19:45	1	0	0	0	0	0	1
20:00	11	0	0	0	0	0	11
20:15	0	0	0	0	0	0	0
20:30	4	0	0	0	0	0	4
20:45	10	0	0	0	0	0	10
21:00	0	0	0	0	0	0	0
21:15	1	0	0	0	0	0	1
21:30	0	1	0	0	0	0	1
21:45	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0
23:00	1	0	0	0	0	0	1
23:15	0	0	0	0	0	0	0
23:30	2	0	0	0	0	0	2
23:45	0	0	0	0	0	0	0
TOTAL	159	16	3	12	0	0	190

AM PEAK HOUR	6:15 PM
AM PEAK VOLUME	37

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	208	31	5	46	0	0	290
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	71.7%	10.7%	1.7%	15.9%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	411	60	8	91	1	0	571
CLASS 6	Buses	% OF TOTAL	72.0%	10.5%	1.4%	15.9%	0.2%	0.0%	100.0%

A102423

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 09, 2024
JOB #: SC4549
CITY: Menifee
LOCATION: CLASS3 Sherman Rd south of Ethanac Rd

AM TIME	SB 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0
0:15	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0
1:45	1	0	0	0	0	0	1
2:00	2	0	0	0	0	0	2
2:15	1	0	0	0	0	0	1
2:30	1	0	0	0	0	0	1
2:45	3	0	0	0	0	0	3
3:00	1	0	0	0	0	0	1
3:15	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0
3:45	3	0	0	1	0	0	4
4:00	0	0	0	0	0	0	0
4:15	1	0	0	0	0	0	1
4:30	2	0	0	2	0	0	4
4:45	2	0	0	1	0	0	3
5:00	1	0	0	2	0	0	3
5:15	0	0	0	1	0	0	1
5:30	2	0	0	0	0	0	2
5:45	4	0	0	0	0	0	4
6:00	1	2	0	1	0	0	4
6:15	0	0	0	0	0	0	0
6:30	3	0	0	0	0	0	3
6:45	3	0	0	1	0	0	4
7:00	5	1	0	0	0	0	6
7:15	6	0	0	0	1	0	7
7:30	2	0	0	0	0	0	2
7:45	6	1	0	1	0	0	8
8:00	1	0	0	1	0	0	2
8:15	2	0	0	0	0	0	2
8:30	1	0	0	0	0	0	1
8:45	5	0	0	0	0	0	5
9:00	1	0	0	2	0	0	3
9:15	6	0	0	1	0	0	7
9:30	4	1	0	0	0	0	5
9:45	1	3	1	1	0	0	6
10:00	1	0	0	2	0	0	3
10:15	0	3	0	0	0	0	3
10:30	0	0	0	0	0	0	0
10:45	1	2	0	1	0	0	4
11:00	2	0	0	2	0	0	4
11:15	1	2	1	0	0	0	4
11:30	3	0	0	0	0	0	3
11:45	6	1	0	0	0	0	7
TOTAL	85	16	2	20	1	0	124

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	23

PM Time	SB 1	2	3	4	5	6	TOTAL
12:00	1	1	0	0	0	0	2
12:15	3	0	0	3	0	0	6
12:30	1	0	0	1	0	0	2
12:45	2	0	0	1	0	0	3
13:00	2	1	0	0	0	0	3
13:15	1	0	0	0	0	0	1
13:30	2	1	0	3	0	0	6
13:45	4	2	0	1	0	0	7
14:00	2	1	0	1	0	0	4
14:15	2	0	0	0	0	0	2
14:30	6	0	0	0	0	0	6
14:45	2	0	0	3	0	0	5
15:00	3	0	0	1	0	0	4
15:15	1	2	0	0	0	0	3
15:30	3	0	0	0	0	0	3
15:45	2	0	0	1	0	0	3
16:00	4	0	0	2	0	0	6
16:15	5	0	0	0	0	0	5
16:30	1	0	0	3	0	0	4
16:45	7	0	0	0	0	0	7
17:00	4	1	0	0	0	0	5
17:15	3	1	0	0	0	0	4
17:30	1	0	0	0	0	0	1
17:45	7	0	1	0	0	0	8
18:00	2	0	0	2	0	0	4
18:15	7	2	0	1	0	0	10
18:30	7	0	0	0	0	0	7
18:45	8	0	0	0	0	0	8
19:00	2	0	0	0	0	0	2
19:15	2	0	0	0	0	0	2
19:30	6	0	0	0	0	0	6
19:45	2	0	0	0	0	0	2
20:00	4	1	0	0	0	0	5
20:15	1	0	0	0	0	0	1
20:30	1	0	0	0	0	0	1
20:45	0	0	0	0	0	0	0
21:00	1	0	0	0	0	0	1
21:15	0	0	0	0	0	0	0
21:30	1	0	0	0	0	0	1
21:45	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0
22:15	1	0	0	1	0	0	2
22:30	0	0	0	0	0	0	0
22:45	2	0	0	0	0	0	2
23:00	0	0	0	1	0	0	1
23:15	1	0	0	0	0	0	1
23:30	1	0	0	0	0	0	1
23:45	0	0	0	0	0	0	0
TOTAL	118	13	1	25	0	0	157

AM PEAK HOUR	6:00 PM
AM PEAK VOLUME	29

TOTAL: AM+PM	203	29	3	45	1	0	281
% OF TOTAL	72.2%	10.3%	1.1%	16.0%	0.4%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A102423

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 09, 2024 **CITY:** Menifee

JOB #: SC4549 **LOCATION:** CLASS3 Sherman Rd south of Ethanac Rd

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	8	1	2	0	0	0	11
0:15	0	0	0	0	0	0	0	12:15	5	0	0	3	0	0	8
0:30	0	0	0	0	0	0	0	12:30	3	0	0	3	0	0	6
0:45	0	0	0	0	0	0	0	12:45	4	0	0	2	0	0	6
1:00	0	0	0	0	0	0	0	13:00	5	1	0	0	0	0	6
1:15	0	0	0	0	0	0	0	13:15	5	1	0	0	0	0	6
1:30	0	0	0	1	0	0	1	13:30	3	2	0	5	0	0	10
1:45	1	0	0	0	0	0	1	13:45	7	2	0	1	0	0	10
2:00	3	0	0	1	0	0	4	14:00	6	1	0	1	0	0	8
2:15	2	0	0	1	0	0	3	14:15	4	1	1	0	0	0	6
2:30	1	0	0	1	0	0	2	14:30	7	1	0	0	0	0	8
2:45	3	0	0	0	0	0	3	14:45	3	0	0	3	0	0	6
3:00	1	0	0	2	0	0	3	15:00	7	2	0	1	0	0	10
3:15	0	0	0	0	0	0	0	15:15	7	3	0	1	0	0	11
3:30	0	0	0	3	0	0	3	15:30	9	1	0	0	0	0	10
3:45	3	0	0	2	0	0	5	15:45	3	1	0	2	0	0	6
4:00	0	0	0	2	0	0	2	16:00	6	0	0	2	0	0	8
4:15	1	0	0	0	0	0	1	16:15	12	0	0	0	0	0	12
4:30	2	0	0	4	0	0	6	16:30	5	0	0	3	0	0	8
4:45	2	0	0	1	0	0	3	16:45	13	0	0	1	0	0	14
5:00	1	1	0	4	0	0	6	17:00	8	1	0	0	0	0	9
5:15	1	1	1	2	0	0	5	17:15	10	2	0	0	0	0	12
5:30	4	0	0	1	0	0	5	17:30	7	1	0	0	0	0	8
5:45	6	2	0	3	0	0	11	17:45	13	1	1	0	0	0	15
6:00	2	2	0	2	0	0	6	18:00	7	0	0	2	0	0	9
6:15	0	0	0	0	0	0	0	18:15	15	3	0	3	0	0	21
6:30	3	0	0	0	0	0	3	18:30	12	0	0	1	0	0	13
6:45	3	0	0	3	0	0	6	18:45	12	1	0	0	0	0	13
7:00	7	1	0	0	0	0	8	19:00	16	1	0	0	0	0	17
7:15	10	0	0	0	1	0	11	19:15	3	0	0	0	0	0	3
7:30	3	0	0	0	0	0	3	19:30	7	0	0	1	0	0	8
7:45	9	1	0	1	0	0	11	19:45	3	0	0	0	0	0	3
8:00	3	0	0	1	0	0	4	20:00	15	1	0	0	0	0	16
8:15	2	0	0	2	0	0	4	20:15	1	0	0	0	0	0	1
8:30	2	0	0	0	0	0	2	20:30	5	0	0	0	0	0	5
8:45	5	0	0	0	0	0	5	20:45	10	0	0	0	0	0	10
9:00	3	0	0	2	0	0	5	21:00	1	0	0	0	0	0	1
9:15	7	0	0	2	0	0	9	21:15	1	0	0	0	0	0	1
9:30	4	1	0	1	0	0	6	21:30	1	1	0	0	0	0	2
9:45	6	5	2	3	0	0	16	21:45	0	0	0	0	0	0	0
10:00	4	4	0	3	0	0	11	22:00	0	0	0	0	0	0	0
10:15	2	3	0	0	0	0	5	22:15	1	0	0	1	0	0	2
10:30	2	1	0	0	0	0	3	22:30	0	0	0	0	0	0	0
10:45	4	3	0	2	0	0	9	22:45	2	0	0	0	0	0	2
11:00	3	1	0	2	0	0	6	23:00	1	0	0	1	0	0	2
11:15	6	4	1	1	0	0	12	23:15	1	0	0	0	0	0	1
11:30	6	0	0	1	0	0	7	23:30	3	0	0	0	0	0	3
11:45	7	1	0	0	0	0	8	23:45	0	0	0	0	0	0	0
TOTAL	134	31	4	54	1	0	224	TOTAL	277	29	4	37	0	0	347
			AM PEAK HOUR				9:15 AM					AM PEAK HOUR			6:15 PM
			AM PEAK VOLUME				42					AM PEAK VOLUME			64

TOTAL: AM+PM	411	60	8	91	1	0	571
% OF TOTAL	72.0%	10.5%	1.4%	15.9%	0.2%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

APPENDIX 3.2: EXISTING (2024) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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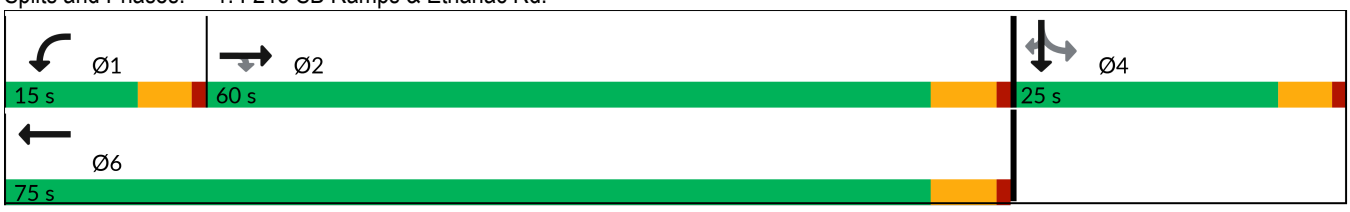
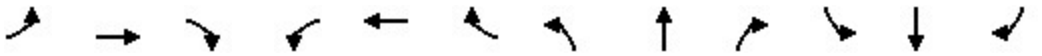
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	740	603	125	641	0	340
Future Volume (vph)	740	603	125	641	0	340
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	10.0	24.5	24.5	24.5
Total Split (s)	60.0	60.0	15.0	75.0	25.0	25.0
Total Split (%)	60.0%	60.0%	15.0%	75.0%	25.0%	25.0%
Yellow Time (s)	5.0	5.0	4.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	41.9	41.9	9.8	56.9	13.7	13.7
Actuated g/C Ratio	0.51	0.51	0.12	0.69	0.17	0.17
v/c Ratio	0.82	0.56	0.62	0.27	0.58	0.70
Control Delay (s/veh)	25.2	3.1	53.6	5.2	42.2	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.2	3.1	53.6	5.2	42.2	16.4
LOS	C	A	D	A	D	B
Approach Delay (s/veh)	15.3			13.1	24.8	
Approach LOS	B			B	C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 82.1	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 16.5	Intersection LOS: B
Intersection Capacity Utilization 85.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	740	603	125	641	0	0	0	0	163	0	340
Future Volume (veh/h)	0	740	603	125	641	0	0	0	0	163	0	340
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	796	511	134	689	0				175	0	213
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	961	814	171	2426	0				308	0	274
Arrive On Green	0.00	0.51	0.51	0.09	0.67	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1810	0	1610
Grp Volume(v), veh/h	0	796	511	134	689	0				175	0	213
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	24.8	16.0	5.0	5.4	0.0				6.2	0.0	8.8
Cycle Q Clear(g_c), s	0.0	24.8	16.0	5.0	5.4	0.0				6.2	0.0	8.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	961	814	171	2426	0				308	0	274
V/C Ratio(X)	0.00	0.83	0.63	0.78	0.28	0.00				0.57	0.00	0.78
Avail Cap(c_a), veh/h	0	1473	1248	260	3576	0				520	0	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.7	12.5	30.8	4.6	0.0				26.6	0.0	27.6
Incr Delay (d2), s/veh	0.0	2.5	0.8	8.4	0.1	0.0				1.6	0.0	4.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.2	4.8	2.4	1.3	0.0				2.5	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	17.1	13.3	39.2	4.7	0.0				28.2	0.0	32.4
LnGrp LOS		B	B	D	A					C		C
Approach Vol, veh/h		1307			823						388	
Approach Delay, s/veh		15.6			10.3						30.5	
Approach LOS		B			B						C	

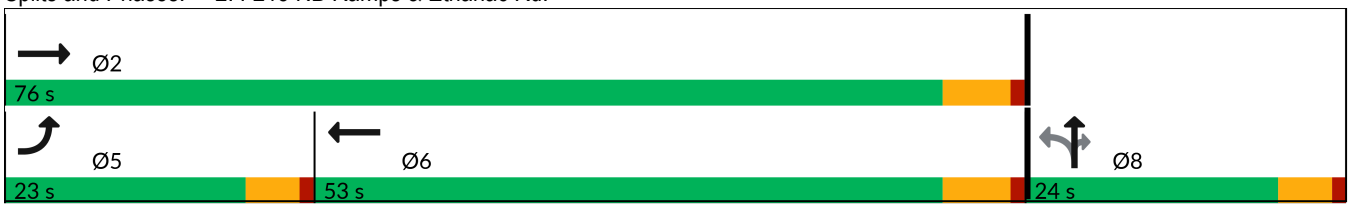
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.6	41.2		16.9		52.8
Change Period (Y+Rc), s	5.0	6.0		5.0		6.0
Max Green Setting (Gmax), s	10.0	54.0		20.0		69.0
Max Q Clear Time (g_c+I1), s	7.0	26.8		10.8		7.4
Green Ext Time (p_c), s	0.1	8.4		1.0		5.1

Intersection Summary		
HCM 7th Control Delay, s/veh		16.2
HCM 7th LOS		B

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	291	613	484	3	143
Future Volume (vph)	291	613	484	3	143
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.5	23.4	23.4	23.4
Total Split (s)	23.0	76.0	53.0	24.0	24.0
Total Split (%)	23.0%	76.0%	53.0%	24.0%	24.0%
Yellow Time (s)	4.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	18.0	65.2	42.1	18.1	18.1
Actuated g/C Ratio	0.19	0.69	0.45	0.19	0.19
v/c Ratio	0.90	0.50	0.92	0.87	0.35
Control Delay (s/veh)	69.5	8.4	41.7	64.1	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	69.5	8.4	41.7	64.1	8.5
LOS	E	A	D	E	A
Approach Delay (s/veh)		28.1	41.7	45.5	
Approach LOS		C	D	D	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 94.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay (s/veh): 36.5	Intersection LOS: D
Intersection Capacity Utilization 85.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	613	0	0	484	235	282	3	143	0	0	0
Future Volume (veh/h)	291	613	0	0	484	235	282	3	143	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	310	652	0	0	515	195	300	3	88			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	347	1297	0	0	569	216	343	3	308			
Arrive On Green	0.19	0.68	0.00	0.00	0.43	0.43	0.19	0.19	0.19			
Sat Flow, veh/h	1810	1900	0	0	1313	497	1792	18	1610			
Grp Volume(v), veh/h	310	652	0	0	0	710	303	0	88			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	0	1810	1810	0	1610			
Q Serve(g_s), s	14.6	14.5	0.0	0.0	0.0	31.9	14.2	0.0	4.1			
Cycle Q Clear(g_c), s	14.6	14.5	0.0	0.0	0.0	31.9	14.2	0.0	4.1			
Prop In Lane	1.00		0.00	0.00		0.27	0.99		1.00			
Lane Grp Cap(c), veh/h	347	1297	0	0	0	785	346	0	308			
V/C Ratio(X)	0.89	0.50	0.00	0.00	0.00	0.90	0.87	0.00	0.29			
Avail Cap(c_a), veh/h	373	1525	0	0	0	976	394	0	351			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.4	6.7	0.0	0.0	0.0	23.0	34.2	0.0	30.2			
Incr Delay (d2), s/veh	22.0	0.3	0.0	0.0	0.0	10.1	17.6	0.0	0.5			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.2	4.4	0.0	0.0	0.0	14.3	7.4	0.0	1.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	56.4	7.0	0.0	0.0	0.0	33.1	51.8	0.0	30.7			
LnGrp LOS	E	A				C	D		C			
Approach Vol, veh/h		962			710			391				
Approach Delay, s/veh		22.9			33.1			47.1				
Approach LOS		C			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		65.5			21.7	43.8		21.7				
Change Period (Y+Rc), s		6.0			5.0	6.0		5.0				
Max Green Setting (Gmax), s		70.0			18.0	47.0		19.0				
Max Q Clear Time (g_c+I1), s		16.5			16.6	33.9		16.2				
Green Ext Time (p_c), s		4.8			0.1	3.9		0.5				
Intersection Summary												
HCM 7th Control Delay, s/veh			31.0									
HCM 7th LOS			C									

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	703	53	36	665	54	29
Future Vol, veh/h	703	53	36	665	54	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	764	58	39	723	59	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	822	0	1594	793
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	801	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	816	-	119	392
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	445	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	816	-	113	392
Mov Cap-2 Maneuver	-	-	-	-	251	-
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	424	-

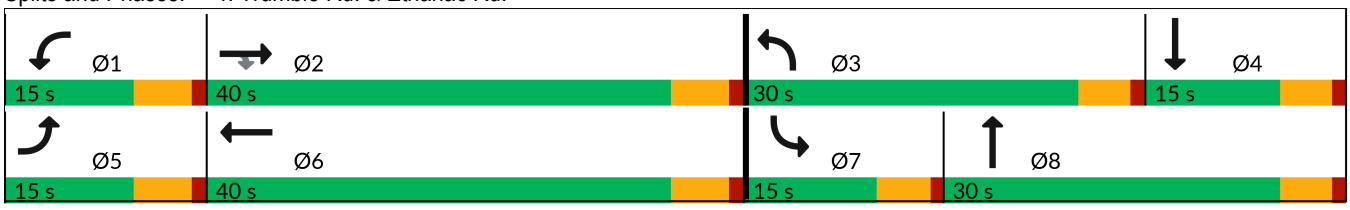
Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.49	23.21
HCM LOS			C

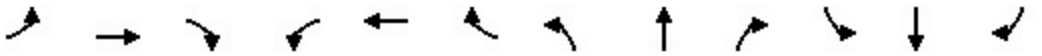
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	287	-	-	816	-
HCM Lane V/C Ratio	0.315	-	-	0.048	-
HCM Control Delay (s/veh)	23.2	-	-	9.6	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1.3	-	-	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	93	638	6	46	507	67	8	18	11
Future Volume (vph)	93	638	6	46	507	67	8	18	11
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	8.1	36.5	36.5	6.9	32.8	7.8	11.6	5.8	8.0
Actuated g/C Ratio	0.11	0.51	0.51	0.10	0.45	0.11	0.16	0.08	0.11
v/c Ratio	0.50	0.73	0.01	0.30	0.67	0.38	0.18	0.14	0.50
Control Delay (s/veh)	44.1	25.3	0.0	40.3	25.1	40.3	12.8	39.9	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	44.1	25.3	0.0	40.3	25.1	40.3	12.8	39.9	13.9
LOS	D	C	A	D	C	D	B	D	B
Approach Delay (s/veh)		27.4			26.4		28.7		16.9
Approach LOS		C			C		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 72.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay (s/veh): 26.1	Intersection LOS: C
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	638	6	46	507	19	67	8	41	18	11	126
Future Volume (veh/h)	93	638	6	46	507	19	67	8	41	18	11	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	102	701	7	51	557	21	74	9	43	20	12	131
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	794	673	88	716	27	110	42	201	43	15	165
Arrive On Green	0.07	0.42	0.42	0.05	0.39	0.39	0.06	0.15	0.15	0.02	0.11	0.11
Sat Flow, veh/h	1810	1900	1610	1810	1819	69	1810	286	1368	1810	137	1494
Grp Volume(v), veh/h	102	701	7	51	0	578	74	0	52	20	0	143
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1888	1810	0	1654	1810	0	1631
Q Serve(g_s), s	3.1	19.2	0.1	1.6	0.0	15.1	2.3	0.0	1.6	0.6	0.0	4.8
Cycle Q Clear(g_c), s	3.1	19.2	0.1	1.6	0.0	15.1	2.3	0.0	1.6	0.6	0.0	4.8
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.83	1.00		0.92
Lane Grp Cap(c), veh/h	132	794	673	88	0	743	110	0	243	43	0	180
V/C Ratio(X)	0.77	0.88	0.01	0.58	0.00	0.78	0.67	0.00	0.21	0.46	0.00	0.80
Avail Cap(c_a), veh/h	312	1171	992	312	0	1164	807	0	737	325	0	293
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.6	15.1	9.6	26.2	0.0	14.9	25.9	0.0	21.1	27.1	0.0	24.4
Incr Delay (d2), s/veh	3.6	4.2	0.0	2.2	0.0	0.7	2.6	0.0	0.2	2.9	0.0	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	7.1	0.0	0.6	0.0	5.1	1.0	0.0	0.5	0.3	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.2	19.3	9.6	28.4	0.0	15.6	28.5	0.0	21.3	30.0	0.0	27.5
LnGrp LOS	C	B	A	C		B	C		C	C		C
Approach Vol, veh/h		810			629			126			163	
Approach Delay, s/veh		20.4			16.6			25.5			27.8	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	28.8	8.3	11.1	9.4	27.5	6.2	13.2
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	3.6	21.2	4.3	6.8	5.1	17.1	2.6	3.6
Green Ext Time (p_c), s	0.0	2.4	0.1	0.1	0.0	2.0	0.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	20.1
HCM 7th LOS	C

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	89	551	20	3	470	6	5	1	4	2	1	98
Future Vol, veh/h	89	551	20	3	470	6	5	1	4	2	1	98
Conflicting Peds, #/hr	0	0	3	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	98	605	22	3	516	7	5	1	4	2	1	108

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	523	0	0	630	0	0	1339	1345	619	1328	1352	520
Stage 1	-	-	-	-	-	-	815	815	-	526	526	-
Stage 2	-	-	-	-	-	-	524	530	-	802	826	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1054	-	-	962	-	-	131	153	492	133	151	560
Stage 1	-	-	-	-	-	-	374	394	-	539	532	-
Stage 2	-	-	-	-	-	-	540	530	-	381	389	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1054	-	-	959	-	-	89	130	491	112	129	560
Mov Cap-2 Maneuver	-	-	-	-	-	-	89	130	-	112	129	-
Stage 1	-	-	-	-	-	-	320	337	-	536	529	-
Stage 2	-	-	-	-	-	-	434	528	-	322	333	-

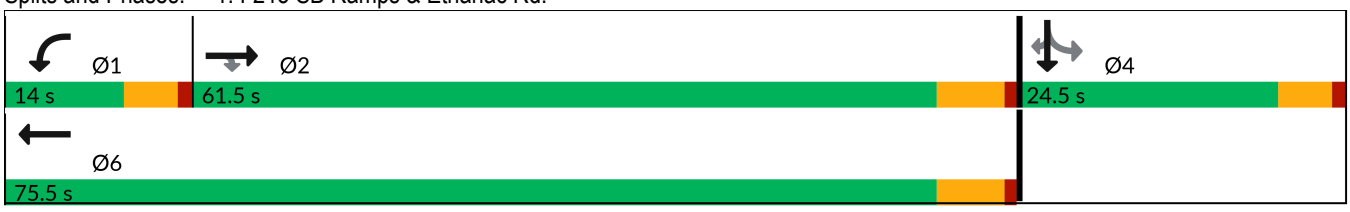
Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.18	0.05	33.02	14.16
HCM LOS			D	B

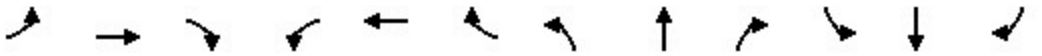
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	139	241	-	-	11	-	-	504
HCM Lane V/C Ratio	0.079	0.093	-	-	0.003	-	-	0.22
HCM Control Delay (s/veh)	33	8.8	0	-	8.8	0	-	14.2
HCM Lane LOS	D	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0	-	-	0.8

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	707	390	109	798	0	348
Future Volume (vph)	707	390	109	798	0	348
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	10.0	24.5	24.5	24.5
Total Split (s)	61.5	61.5	14.0	75.5	24.5	24.5
Total Split (%)	61.5%	61.5%	14.0%	75.5%	24.5%	24.5%
Yellow Time (s)	5.0	5.0	4.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	38.5	38.5	8.7	52.2	19.4	19.4
Actuated g/C Ratio	0.46	0.46	0.10	0.63	0.23	0.23
v/c Ratio	0.81	0.41	0.59	0.35	0.80	0.63
Control Delay (s/veh)	27.2	2.5	53.0	7.4	48.9	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.2	2.5	53.0	7.4	48.9	17.3
LOS	C	A	D	A	D	B
Approach Delay (s/veh)	18.5			13.0	32.8	
Approach LOS	B			B	C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 82.9	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 20.2	Intersection LOS: C
Intersection Capacity Utilization 88.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	707	390	109	798	0	0	0	0	332	0	348
Future Volume (veh/h)	0	707	390	109	798	0	0	0	0	332	0	348
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	721	247	111	814	0				339	0	192
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	866	734	144	2202	0				409	0	364
Arrive On Green	0.00	0.46	0.46	0.08	0.61	0.00				0.23	0.00	0.23
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1810	0	1610
Grp Volume(v), veh/h	0	721	247	111	814	0				339	0	192
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	22.3	6.6	4.0	7.6	0.0				12.0	0.0	7.0
Cycle Q Clear(g_c), s	0.0	22.3	6.6	4.0	7.6	0.0				12.0	0.0	7.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	866	734	144	2202	0				409	0	364
V/C Ratio(X)	0.00	0.83	0.34	0.77	0.37	0.00				0.83	0.00	0.53
Avail Cap(c_a), veh/h	0	1572	1332	243	3740	0				526	0	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	16.0	11.7	30.3	6.6	0.0				24.7	0.0	22.8
Incr Delay (d2), s/veh	0.0	2.2	0.3	8.5	0.1	0.0				8.5	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.4	2.0	2.0	2.1	0.0				5.3	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	18.2	12.0	38.8	6.7	0.0				33.2	0.0	24.0
LnGrp LOS		B	B	D	A					C		C
Approach Vol, veh/h		968			925						531	
Approach Delay, s/veh		16.6			10.5						29.9	
Approach LOS		B			B						C	

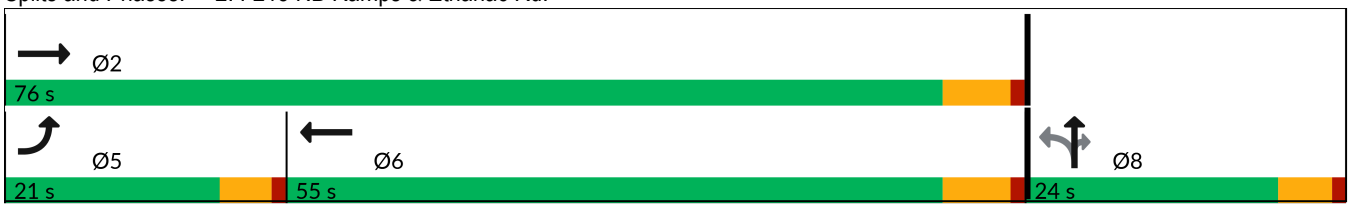
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	10.3	36.6		20.2		46.9						
Change Period (Y+Rc), s	5.0	6.0		5.0		6.0						
Max Green Setting (Gmax), s	9.0	55.5		19.5		69.5						
Max Q Clear Time (g_c+I1), s	6.0	24.3		14.0		9.6						
Green Ext Time (p_c), s	0.1	6.3		1.2		6.4						

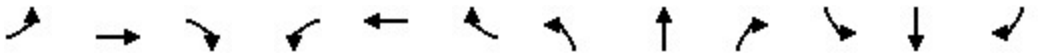
Intersection Summary												
HCM 7th Control Delay, s/veh			17.2									
HCM 7th LOS			B									

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	262	777	445	0	289
Future Volume (vph)	262	777	445	0	289
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.5	23.4	23.4	23.4
Total Split (s)	21.0	76.0	55.0	24.0	24.0
Total Split (%)	21.0%	76.0%	55.0%	24.0%	24.0%
Yellow Time (s)	4.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	15.7	55.6	34.8	19.3	19.3
Actuated g/C Ratio	0.18	0.65	0.40	0.22	0.22
v/c Ratio	0.81	0.65	0.86	1.17	0.53
Control Delay (s/veh)	56.4	11.7	34.4	132.3	11.5
Queue Delay	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	56.4	11.8	34.4	132.3	11.5
LOS	E	B	C	F	B
Approach Delay (s/veh)		23.1	34.4	85.8	
Approach LOS		C	C	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 86	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay (s/veh): 45.4	Intersection LOS: D
Intersection Capacity Utilization 88.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	777	0	0	445	192	462	0	289	0	0	0
Future Volume (veh/h)	262	777	0	0	445	192	462	0	289	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	267	793	0	0	454	150	471	0	222			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	310	1174	0	0	523	173	438	0	390			
Arrive On Green	0.17	0.62	0.00	0.00	0.38	0.38	0.24	0.00	0.24			
Sat Flow, veh/h	1810	1900	0	0	1367	452	1810	0	1610			
Grp Volume(v), veh/h	267	793	0	0	0	604	471	0	222			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	0	1819	1810	0	1610			
Q Serve(g_s), s	11.3	21.5	0.0	0.0	0.0	24.1	19.0	0.0	9.5			
Cycle Q Clear(g_c), s	11.3	21.5	0.0	0.0	0.0	24.1	19.0	0.0	9.5			
Prop In Lane	1.00		0.00	0.00		0.25	1.00		1.00			
Lane Grp Cap(c), veh/h	310	1174	0	0	0	696	438	0	390			
V/C Ratio(X)	0.86	0.68	0.00	0.00	0.00	0.87	1.08	0.00	0.57			
Avail Cap(c_a), veh/h	369	1695	0	0	0	1136	438	0	390			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	31.6	9.8	0.0	0.0	0.0	22.4	29.7	0.0	26.1			
Incr Delay (d2), s/veh	16.3	0.7	0.0	0.0	0.0	4.2	64.6	0.0	2.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.0	7.0	0.0	0.0	0.0	10.0	15.1	0.0	3.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.9	10.5	0.0	0.0	0.0	26.6	94.3	0.0	28.1			
LnGrp LOS	D	B				C	F		C			
Approach Vol, veh/h		1060			604			693				
Approach Delay, s/veh		20.0			26.6			73.1				
Approach LOS		B			C			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		54.5			18.4	36.0		24.0				
Change Period (Y+Rc), s		6.0			5.0	6.0		5.0				
Max Green Setting (Gmax), s		70.0			16.0	49.0		19.0				
Max Q Clear Time (g_c+I1), s		23.5			13.3	26.1		21.0				
Green Ext Time (p_c), s		6.5			0.2	4.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			37.3									
HCM 7th LOS			D									

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	929	137	22	567	69	55
Future Vol, veh/h	929	137	22	567	69	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	948	140	22	579	70	56

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1088	0	1641	1018
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	623	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	649	-	111	291
Stage 1	-	-	-	-	352	-
Stage 2	-	-	-	-	538	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	649	-	107	291
Mov Cap-2 Maneuver	-	-	-	-	238	-
Stage 1	-	-	-	-	352	-
Stage 2	-	-	-	-	520	-

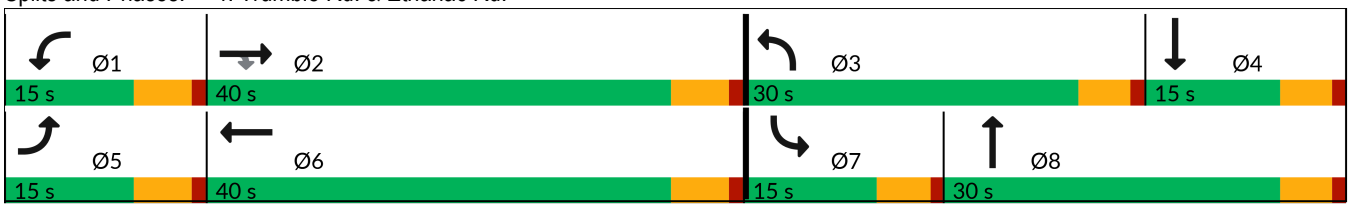
Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.4	31.5
HCM LOS			D

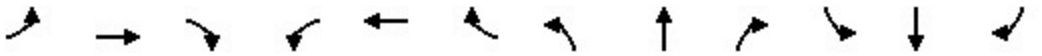
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	259	-	-	649	-
HCM Lane V/C Ratio	0.489	-	-	0.035	-
HCM Control Delay (s/veh)	31.5	-	-	10.7	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	2.5	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	66	814	15	28	412	77	2	16	7
Future Volume (vph)	66	814	15	28	412	77	2	16	7
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	7.4	39.8	39.8	6.3	36.5	8.1	13.7	5.9	7.7
Actuated g/C Ratio	0.11	0.59	0.59	0.09	0.54	0.12	0.20	0.09	0.11
v/c Ratio	0.36	0.77	0.02	0.18	0.44	0.38	0.18	0.11	0.40
Control Delay (s/veh)	39.1	25.9	0.0	38.0	18.9	38.0	8.8	38.4	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	39.1	25.9	0.0	38.0	18.9	38.0	8.8	38.4	13.0
LOS	D	C	A	D	B	D	A	D	B
Approach Delay (s/veh)		26.4			20.1		24.9		16.3
Approach LOS		C			C		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 67.5	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 23.7	Intersection LOS: C
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	814	15	28	412	13	77	2	61	16	7	100
Future Volume (veh/h)	66	814	15	28	412	13	77	2	61	16	7	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	70	866	16	30	438	14	82	2	60	17	7	82
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	941	795	59	862	28	113	6	170	37	9	103
Arrive On Green	0.06	0.50	0.50	0.03	0.47	0.47	0.06	0.11	0.11	0.02	0.07	0.07
Sat Flow, veh/h	1810	1900	1604	1810	1831	59	1810	52	1545	1810	128	1502
Grp Volume(v), veh/h	70	866	16	30	0	452	82	0	62	17	0	89
Grp Sat Flow(s),veh/h/ln	1810	1900	1604	1810	0	1889	1810	0	1597	1810	0	1630
Q Serve(g_s), s	2.3	25.3	0.3	1.0	0.0	10.0	2.7	0.0	2.2	0.6	0.0	3.2
Cycle Q Clear(g_c), s	2.3	25.3	0.3	1.0	0.0	10.0	2.7	0.0	2.2	0.6	0.0	3.2
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.97	1.00		0.92
Lane Grp Cap(c), veh/h	104	941	795	59	0	890	113	0	176	37	0	112
V/C Ratio(X)	0.67	0.92	0.02	0.51	0.00	0.51	0.73	0.00	0.35	0.46	0.00	0.80
Avail Cap(c_a), veh/h	293	1102	930	293	0	1096	759	0	670	306	0	275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.6	14.0	7.7	28.5	0.0	11.0	27.6	0.0	24.6	29.0	0.0	27.5
Incr Delay (d2), s/veh	2.8	10.3	0.0	2.5	0.0	0.2	3.4	0.0	0.4	3.2	0.0	4.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	10.4	0.1	0.4	0.0	3.1	1.2	0.0	0.8	0.3	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.4	24.3	7.7	30.9	0.0	11.2	30.9	0.0	25.1	32.2	0.0	32.3
LnGrp LOS	C	C	A	C		B	C		C	C		C
Approach Vol, veh/h		952			482			144			106	
Approach Delay, s/veh		24.5			12.4			28.4			32.3	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	34.9	8.6	9.0	8.7	33.5	6.1	11.5
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	3.0	27.3	4.7	5.2	4.3	12.0	2.6	4.2
Green Ext Time (p_c), s	0.0	2.3	0.1	0.1	0.0	1.5	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	21.9
HCM 7th LOS	C

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	177	710	7	6	336	4	16	4	10	7	6	101
Future Vol, veh/h	177	710	7	6	336	4	16	4	10	7	6	101
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	190	763	8	6	361	4	17	4	11	8	6	109

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	366	0	0	771	0	0	1525	1526	767	1523	1528	363
Stage 1	-	-	-	-	-	-	1148	1148	-	376	376	-
Stage 2	-	-	-	-	-	-	377	378	-	1146	1152	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1204	-	-	853	-	-	97	119	405	98	119	686
Stage 1	-	-	-	-	-	-	244	276	-	649	620	-
Stage 2	-	-	-	-	-	-	648	618	-	245	275	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1204	-	-	853	-	-	55	85	405	66	85	686
Mov Cap-2 Maneuver	-	-	-	-	-	-	55	85	-	66	85	-
Stage 1	-	-	-	-	-	-	177	199	-	643	614	-
Stage 2	-	-	-	-	-	-	535	612	-	168	199	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.69	0.16	73.25	20.63
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	83	356	-	-	31	-	-	351
HCM Lane V/C Ratio	0.387	0.158	-	-	0.008	-	-	0.349
HCM Control Delay (s/veh)	73.3	8.6	0	-	9.3	0	-	20.6
HCM Lane LOS	F	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.5	0.6	-	-	0	-	-	1.5

APPENDIX 3.3: EXISTING (2024) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

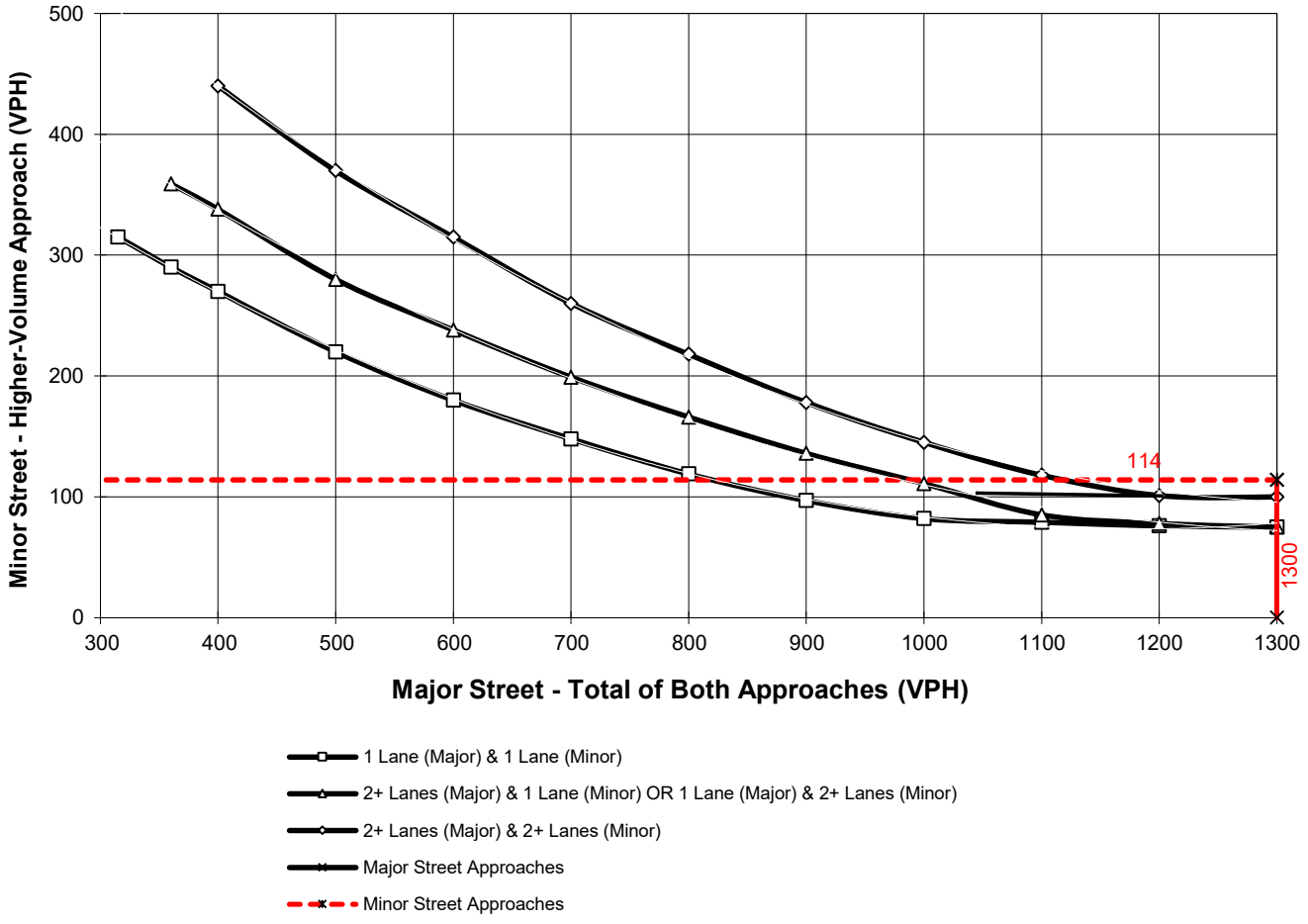
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2022) Conditions - Weekday AM Peak Hour**

Major Street Name = **Ethanac Road** — Total of Both Approaches (VPH) = **1656**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Encanto Drive** — High Volume Approach (VPH) = **114**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

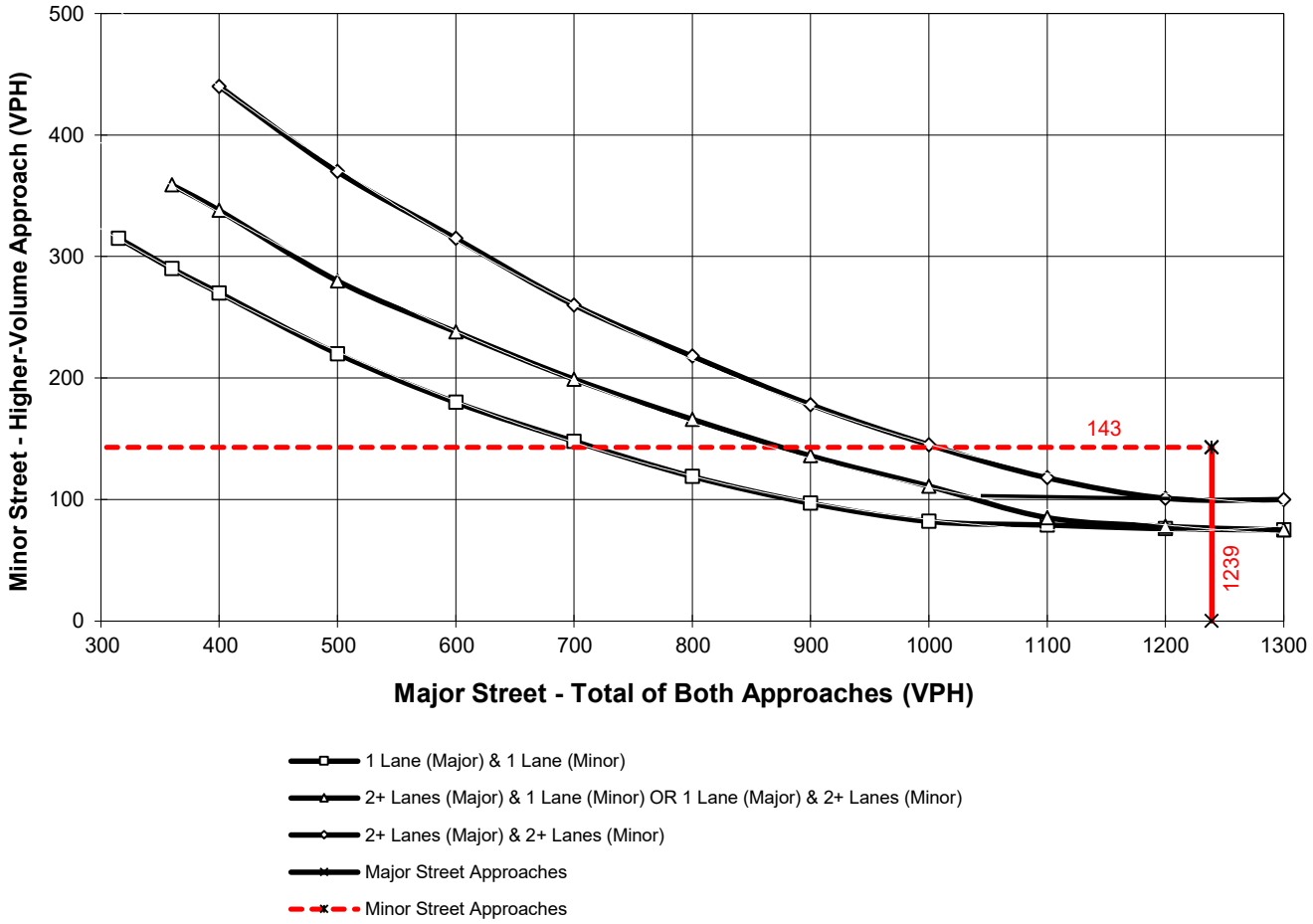
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2024) Conditions - Weekday PM Peak Hour**

Major Street Name = **Ethanac Road** — Total of Both Approaches (VPH) = **1239**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Sherman Road** — High Volume Approach (VPH) = **143**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 3.4: EXISTING (2024) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	796	648	134	689	175	366
v/c Ratio	0.82	0.56	0.62	0.27	0.58	0.70
Control Delay (s/veh)	25.2	3.1	53.6	5.2	42.2	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.2	3.1	53.6	5.2	42.2	16.4
Queue Length 50th (ft)	321	0	68	58	87	32
Queue Length 95th (ft)	547	50	#177	102	167	132
Internal Link Dist (ft)	624			681	1327	
Turn Bay Length (ft)			275			240
Base Capacity (vph)	1305	1312	229	3011	459	633
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.49	0.59	0.23	0.38	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	316	666	781	310	155
v/c Ratio	0.92	0.50	0.93	0.89	0.35
Control Delay (s/veh)	74.1	8.5	43.3	67.5	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	74.1	8.5	43.3	67.5	8.4
Queue Length 50th (ft)	202	171	426	195	0
Queue Length 95th (ft)	#373	246	#678	#352	53
Internal Link Dist (ft)		681	457	1327	
Turn Bay Length (ft)	245				270
Base Capacity (vph)	341	1399	915	362	446
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.93	0.48	0.85	0.86	0.35

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	721	398	111	814	339	355
v/c Ratio	0.81	0.41	0.59	0.35	0.80	0.63
Control Delay (s/veh)	27.2	2.5	53.0	7.4	48.9	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.2	2.5	53.0	7.4	48.9	17.3
Queue Length 50th (ft)	311	0	56	94	166	51
Queue Length 95th (ft)	445	40	#150	121	#391	172
Internal Link Dist (ft)	624			681	1327	
Turn Bay Length (ft)			275			240
Base Capacity (vph)	1299	1230	200	3039	433	567
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.32	0.56	0.27	0.78	0.63

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	267	793	650	471	295
v/c Ratio	0.81	0.64	0.86	1.16	0.53
Control Delay (s/veh)	56.4	11.7	34.3	132.3	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.4	11.8	34.3	132.3	11.5
Queue Length 50th (ft)	139	227	299	~308	21
Queue Length 95th (ft)	#321	326	439	#594	107
Internal Link Dist (ft)		681	457	1327	
Turn Bay Length (ft)	245				270
Base Capacity (vph)	340	1568	1065	404	553
Starvation Cap Reductn	0	95	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.79	0.54	0.61	1.17	0.53

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 4.1: POST PROCESSING WORKSHEETS

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Project:	Ethanac Business Park	Job #:	15796
Scenario:	Horizon Year (2045) Without Project	Analyst:	JB
		Date:	5/13/24

LOCATION: I-215 Southbound Ramps & Ethanac Road
FORECAST YEAR: 2045

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	135	171	36	27%	302	297	-5	-2%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	271	465	194	72%	327	431	104	32%
	SB Total	406	636	230	57%	629	728	99	16%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	666	1,099	433	65%	637	1,213	576	90%
	Right	484	550	66	14%	372	409	37	10%
	EB Total	1,150	1,649	499	43%	1,009	1,622	613	61%
WEST BOUND	Left	99	100	1	1%	96	61	-35	-36%
	Through	576	1,145	569	99%	720	1,069	349	48%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	675	1,245	570	84%	816	1,130	314	38%
TOTAL ENTERING VOLUME		2,231	3,530	1299	58%	2,454	3,480	1026	42%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	636	728			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**636**	**728**	**4%**	**5%**	**14,842**
South Leg	Inbound	0	0			
South Leg	Outbound	650	470			
South Leg	**TOTAL**	**650**	**470**	**9%**	**6%**	**7,591**
East Leg	Inbound	1,245	1,130			
East Leg	Outbound	1,270	1,510			
East Leg	**TOTAL**	**2,515**	**2,640**	**6%**	**6%**	**43,579**
West Leg	Inbound	1,649	1,622			
West Leg	Outbound	1,610	1,500			
West Leg	**TOTAL**	**3,259**	**3,122**	**6%**	**6%**	**54,664**
OVERALL TOTAL		***7,060***	***6,960***	**6%**	***6%***	***120,676***

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Project: Ethanac Business Park
Scenario: Horizon Year (2045) Without Project

Job #: 15796
Analyst: JB
Date: 5/13/24

LOCATION: I-215 Northbound Ramps & Ethanac Road
FORECAST YEAR: 2045

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	256	282	26	10%	402	436	34	8%
	Through	2	1	-1	-50%	0	0	0	#DIV/0!
	Right	116	88	-28	-24%	242	296	54	22%
	NB Total	374	371	-3	-1%	644	732	88	14%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	247	319	72	29%	232	312	80	34%
	Through	554	943	389	70%	707	1,204	497	70%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	801	1,262	461	58%	939	1,516	577	61%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	419	961	542	129%	414	674	260	63%
	Right	188	225	37	20%	164	238	74	45%
	WB Total	607	1,186	579	95%	578	912	334	58%
TOTAL ENTERING VOLUME		1,782	2,819	1037	58%	2,161	3,160	999	46%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	545	550			
North Leg	**TOTAL**	**545**	**550**	**6%**	**6%**	**9,896**
South Leg	Inbound	371	732			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**371**	**732**	**4%**	**7%**	**10,573**
East Leg	Inbound	1,186	912			
East Leg	Outbound	1,031	1,500			
East Leg	**TOTAL**	**2,217**	**2,412**	**5%**	**6%**	**40,353**
West Leg	Inbound	1,262	1,516			
West Leg	Outbound	1,243	1,110			
West Leg	**TOTAL**	**2,505**	**2,626**	**6%**	**6%**	**43,579**
OVERALL TOTAL		***5,638***	***6,320***	**5%**	***6%***	***104,400***

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Project: Ethanac Business Park
Scenario: Horizon Year (2045) Without Project

Job #: 15796
Analyst: JB
Date: 5/13/24

LOCATION: Encanto Drive & Ethanac Road
FORECAST YEAR: 2045

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	48	256	208	433%	65	136	71	109%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	25	48	23	92%	48	48	0	0%
	NB Total	73	304	231	316%	113	184	71	63%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	619	792	173	28%	828	1,182	354	43%
	Right	51	109	58	114%	121	276	155	128%
	EB Total	670	901	231	34%	949	1,458	509	54%
WEST BOUND	Left	31	31	0	0%	22	24	2	9%
	Through	559	944	385	69%	513	714	201	39%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	590	975	385	65%	535	738	203	38%
TOTAL ENTERING VOLUME		1,333	2,180	847	64%	1,597	2,380	783	49%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	304	184			
South Leg	Outbound	140	300			
South Leg	**TOTAL**	**444**	**484**	**4%**	**5%**	**9,938**
East Leg	Inbound	975	738			
East Leg	Outbound	840	1,230			
East Leg	**TOTAL**	**1,815**	**1,968**	**6%**	**6%**	**31,956**
West Leg	Inbound	901	1,458			
West Leg	Outbound	1,200	850			
West Leg	**TOTAL**	**2,101**	**2,308**	**6%**	**6%**	**38,183**
OVERALL TOTAL		***4,360***	***4,760***	**5%**	***6%***	***80,078***

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Project:	Ethanac Business Park	Job #:	15796
Scenario:	Horizon Year (2045) Without Project	Analyst:	JB
		Date:	5/13/24

LOCATION: Sherman Road & Ethanac Road
FORECAST YEAR: 2045

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	50	49	4900%	1	24	23	2300%
	Through	2	22	20	1000%	2	12	10	500%
	Right	1	9	8	800%	1	4	3	300%
	NB Total	4	81	77	1925%	4	40	36	900%
SOUTH BOUND	Left	1	37	36	3600%	1	30	29	2900%
	Through	2	19	17	850%	2	19	17	850%
	Right	1	208	207	20700%	1	167	166	16600%
	SB Total	4	264	260	6500%	4	216	212	5300%
EAST BOUND	Left	1	120	119	11900%	1	154	153	15300%
	Through	2	438	436	21800%	1	515	514	51400%
	Right	1	25	24	2400%	1	36	35	3500%
	EB Total	4	583	579	14475%	3	705	702	23400%
WEST BOUND	Left	1	6	5	500%	1	6	5	500%
	Through	2	608	606	30300%	2	459	457	22850%
	Right	1	29	28	2800%	1	25	24	2400%
	WB Total	4	643	639	15975%	4	490	486	12150%
TOTAL ENTERING VOLUME		16	1,571	1555	9719%	15	1,451	1436	9573%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	264	216			
North Leg	Outbound	171	191			
North Leg	**TOTAL**	**435**	**407**	**7%**	**7%**	**6,191**
South Leg	Inbound	81	40			
South Leg	Outbound	50	61			
South Leg	**TOTAL**	**131**	**101**	**12%**	**10%**	**1,058**
East Leg	Inbound	643	490			
East Leg	Outbound	484	549			
East Leg	**TOTAL**	**1,127**	**1,039**	**4%**	**4%**	**29,001**
West Leg	Inbound	583	705			
West Leg	Outbound	866	650			
West Leg	**TOTAL**	**1,449**	**1,355**	**4%**	**4%**	**34,964**
OVERALL TOTAL		***3,142***	***2,902***	***4%***	***4%***	***71,214***

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APPENDIX 5.1: E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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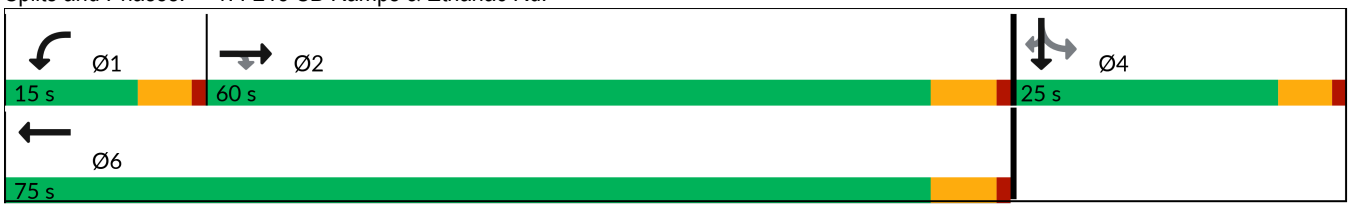
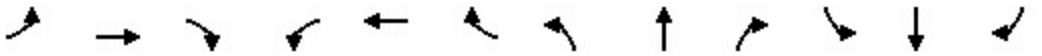
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	743	603	129	642	0	340
Future Volume (vph)	743	603	129	642	0	340
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	10.0	24.5	24.5	24.5
Total Split (s)	60.0	60.0	15.0	75.0	25.0	25.0
Total Split (%)	60.0%	60.0%	15.0%	75.0%	25.0%	25.0%
Yellow Time (s)	5.0	5.0	4.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	42.4	42.4	9.8	57.5	14.4	14.4
Actuated g/C Ratio	0.51	0.51	0.12	0.69	0.17	0.17
v/c Ratio	0.82	0.56	0.65	0.27	0.61	0.69
Control Delay (s/veh)	25.9	3.1	55.7	5.4	43.3	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.9	3.1	55.7	5.4	43.3	15.9
LOS	C	A	E	A	D	B
Approach Delay (s/veh)	15.7			13.9	25.4	
Approach LOS	B			B	C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 83.3	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 17.1	Intersection LOS: B
Intersection Capacity Utilization 85.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	743	603	129	642	0	0	0	0	179	0	340
Future Volume (veh/h)	0	743	603	129	642	0	0	0	0	179	0	340
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	799	511	139	690	0				192	0	213
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	961	814	177	2433	0				308	0	274
Arrive On Green	0.00	0.51	0.51	0.10	0.67	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1810	0	1610
Grp Volume(v), veh/h	0	799	511	139	690	0				192	0	213
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	25.4	16.2	5.3	5.4	0.0				7.0	0.0	8.9
Cycle Q Clear(g_c), s	0.0	25.4	16.2	5.3	5.4	0.0				7.0	0.0	8.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	961	814	177	2433	0				308	0	274
V/C Ratio(X)	0.00	0.83	0.63	0.79	0.28	0.00				0.62	0.00	0.78
Avail Cap(c_a), veh/h	0	1452	1230	256	3525	0				512	0	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.9	12.7	31.2	4.6	0.0				27.2	0.0	28.0
Incr Delay (d2), s/veh	0.0	2.6	0.8	9.7	0.1	0.0				2.1	0.0	4.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.5	4.9	2.6	1.3	0.0				2.8	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	17.5	13.5	40.8	4.7	0.0				29.3	0.0	32.7
LnGrp LOS		B	B	D	A					C		C
Approach Vol, veh/h		1310			829						405	
Approach Delay, s/veh		16.0			10.8						31.1	
Approach LOS		B			B						C	

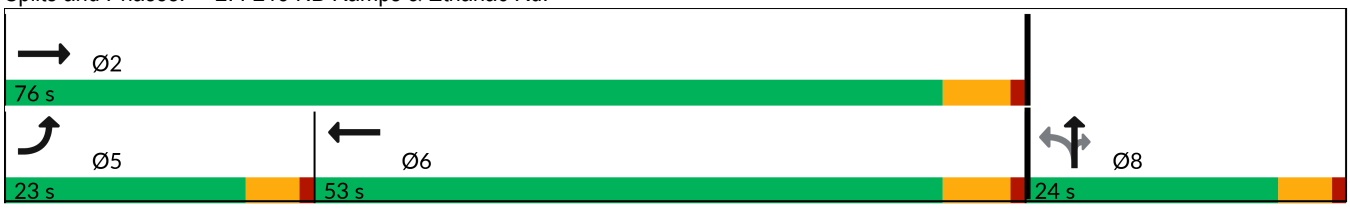
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.9	41.7		17.0		53.6
Change Period (Y+Rc), s	5.0	6.0		5.0		6.0
Max Green Setting (Gmax), s	10.0	54.0		20.0		69.0
Max Q Clear Time (g_c+I1), s	7.3	27.4		10.9		7.4
Green Ext Time (p_c), s	0.1	8.4		1.1		5.1

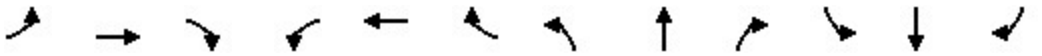
Intersection Summary		
HCM 7th Control Delay, s/veh		16.7
HCM 7th LOS		B

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	291	632	489	3	154
Future Volume (vph)	291	632	489	3	154
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.5	23.4	23.4	23.4
Total Split (s)	23.0	76.0	53.0	24.0	24.0
Total Split (%)	23.0%	76.0%	53.0%	24.0%	24.0%
Yellow Time (s)	4.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	18.0	65.9	42.8	18.2	18.2
Actuated g/C Ratio	0.19	0.69	0.45	0.19	0.19
v/c Ratio	0.91	0.51	0.93	0.88	0.37
Control Delay (s/veh)	70.6	8.6	42.8	65.1	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.6	8.6	42.8	65.1	8.4
LOS	E	A	D	E	A
Approach Delay (s/veh)		28.2	42.8	45.2	
Approach LOS		C	D	D	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 95.1	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay (s/veh): 36.8	Intersection LOS: D
Intersection Capacity Utilization 85.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	632	0	0	489	241	282	3	154	0	0	0
Future Volume (veh/h)	291	632	0	0	489	241	282	3	154	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	310	672	0	0	520	201	300	3	100			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	346	1302	0	0	571	221	342	3	307			
Arrive On Green	0.19	0.69	0.00	0.00	0.44	0.44	0.19	0.19	0.19			
Sat Flow, veh/h	1810	1900	0	0	1305	504	1792	18	1610			
Grp Volume(v), veh/h	310	672	0	0	0	721	303	0	100			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	0	1809	1810	0	1610			
Q Serve(g_s), s	14.8	15.3	0.0	0.0	0.0	33.0	14.4	0.0	4.8			
Cycle Q Clear(g_c), s	14.8	15.3	0.0	0.0	0.0	33.0	14.4	0.0	4.8			
Prop In Lane	1.00		0.00	0.00		0.28	0.99		1.00			
Lane Grp Cap(c), veh/h	346	1302	0	0	0	792	345	0	307			
V/C Ratio(X)	0.90	0.52	0.00	0.00	0.00	0.91	0.88	0.00	0.33			
Avail Cap(c_a), veh/h	367	1499	0	0	0	958	388	0	345			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.0	6.8	0.0	0.0	0.0	23.3	34.9	0.0	31.0			
Incr Delay (d2), s/veh	22.9	0.3	0.0	0.0	0.0	11.0	18.4	0.0	0.6			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.4	4.7	0.0	0.0	0.0	15.0	7.6	0.0	1.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.9	7.1	0.0	0.0	0.0	34.3	53.3	0.0	31.6			
LnGrp LOS	E	A				C	D		C			
Approach Vol, veh/h		982			721			403				
Approach Delay, s/veh		23.2			34.3			47.9				
Approach LOS		C			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.8			22.0	44.9		21.9				
Change Period (Y+Rc), s		6.0			5.0	6.0		5.0				
Max Green Setting (Gmax), s		70.0			18.0	47.0		19.0				
Max Q Clear Time (g_c+I1), s		17.3			16.8	35.0		16.4				
Green Ext Time (p_c), s		5.0			0.1	3.8		0.5				
Intersection Summary												
HCM 7th Control Delay, s/veh			31.7									
HCM 7th LOS			C									

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	733	53	36	677	54	29
Future Vol, veh/h	733	53	36	677	54	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	797	58	39	736	59	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	854	0	1640	826
Stage 1	-	-	-	-	826	-
Stage 2	-	-	-	-	814	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	794	-	112	375
Stage 1	-	-	-	-	434	-
Stage 2	-	-	-	-	439	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	794	-	106	375
Mov Cap-2 Maneuver	-	-	-	-	242	-
Stage 1	-	-	-	-	434	-
Stage 2	-	-	-	-	417	-

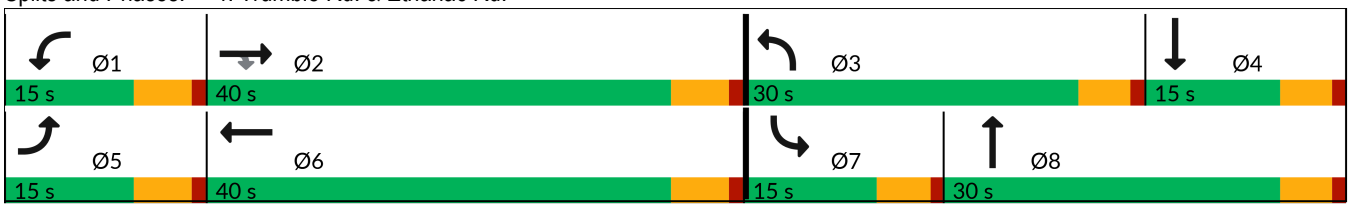
Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.49	24.18
HCM LOS			C

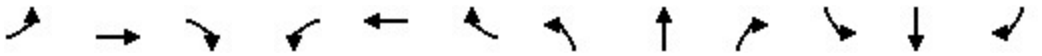
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	277	-	-	794	-
HCM Lane V/C Ratio	0.326	-	-	0.049	-
HCM Control Delay (s/veh)	24.2	-	-	9.8	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1.4	-	-	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	93	668	6	46	519	67	8	18	11
Future Volume (vph)	93	668	6	46	519	67	8	18	11
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	8.1	37.0	37.0	6.9	33.3	7.8	11.6	5.8	8.0
Actuated g/C Ratio	0.11	0.51	0.51	0.09	0.46	0.11	0.16	0.08	0.11
v/c Ratio	0.51	0.76	0.01	0.30	0.68	0.38	0.18	0.14	0.50
Control Delay (s/veh)	44.5	26.3	0.0	40.6	25.4	40.6	12.9	40.2	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	44.5	26.3	0.0	40.6	25.4	40.6	12.9	40.2	13.9
LOS	D	C	A	D	C	D	B	D	B
Approach Delay (s/veh)		28.3			26.6		28.9		17.0
Approach LOS		C			C		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 72.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 26.6	Intersection LOS: C
Intersection Capacity Utilization 68.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	668	6	46	519	19	67	8	41	18	11	126
Future Volume (veh/h)	93	668	6	46	519	19	67	8	41	18	11	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	102	734	7	51	570	21	74	9	43	20	12	131
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	822	696	87	742	27	108	42	200	43	15	164
Arrive On Green	0.07	0.43	0.43	0.05	0.41	0.41	0.06	0.15	0.15	0.02	0.11	0.11
Sat Flow, veh/h	1810	1900	1610	1810	1821	67	1810	286	1368	1810	137	1494
Grp Volume(v), veh/h	102	734	7	51	0	591	74	0	52	20	0	143
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1888	1810	0	1654	1810	0	1631
Q Serve(g_s), s	3.2	20.8	0.1	1.6	0.0	15.8	2.3	0.0	1.6	0.6	0.0	5.0
Cycle Q Clear(g_c), s	3.2	20.8	0.1	1.6	0.0	15.8	2.3	0.0	1.6	0.6	0.0	5.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.83	1.00		0.92
Lane Grp Cap(c), veh/h	132	822	696	87	0	769	108	0	242	43	0	179
V/C Ratio(X)	0.77	0.89	0.01	0.58	0.00	0.77	0.68	0.00	0.22	0.47	0.00	0.80
Avail Cap(c_a), veh/h	301	1130	958	301	0	1123	778	0	711	313	0	282
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.6	15.3	9.4	27.2	0.0	14.9	26.9	0.0	22.0	28.1	0.0	25.3
Incr Delay (d2), s/veh	3.6	5.8	0.0	2.3	0.0	1.0	2.8	0.0	0.2	2.9	0.0	3.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	8.1	0.0	0.7	0.0	5.4	1.0	0.0	0.6	0.3	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.1	21.1	9.4	29.5	0.0	15.9	29.7	0.0	22.1	31.0	0.0	28.8
LnGrp LOS	C	C	A	C		B	C		C	C		C
Approach Vol, veh/h		843			642			126			163	
Approach Delay, s/veh		22.1			17.0			26.6			29.1	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	30.5	8.4	11.3	9.6	29.1	6.3	13.4
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	3.6	22.8	4.3	7.0	5.2	17.8	2.6	3.6
Green Ext Time (p_c), s	0.0	2.4	0.1	0.1	0.0	2.0	0.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	21.2
HCM 7th LOS	C

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	89	551	50	7	470	6	17	2	5	2	4	98
Future Vol, veh/h	89	551	50	7	470	6	17	2	5	2	4	98
Conflicting Peds, #/hr	0	0	3	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	98	605	55	8	516	7	19	2	5	2	4	108

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	523	0	0	663	0	0	1366	1370	636	1337	1394	520
Stage 1	-	-	-	-	-	-	832	832	-	535	535	-
Stage 2	-	-	-	-	-	-	534	538	-	802	859	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1054	-	-	935	-	-	126	148	481	131	143	560
Stage 1	-	-	-	-	-	-	367	387	-	533	527	-
Stage 2	-	-	-	-	-	-	533	525	-	380	376	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1054	-	-	932	-	-	83	124	480	108	120	560
Mov Cap-2 Maneuver	-	-	-	-	-	-	83	124	-	108	120	-
Stage 1	-	-	-	-	-	-	311	329	-	527	521	-
Stage 2	-	-	-	-	-	-	422	519	-	318	319	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.13	0.13	51.39	15.44
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	103	228	-	-	26	-	-	458
HCM Lane V/C Ratio	0.255	0.093	-	-	0.008	-	-	0.249
HCM Control Delay (s/veh)	51.4	8.8	0	-	8.9	0	-	15.4
HCM Lane LOS	F	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.3	-	-	0	-	-	1

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	0	2	7	18	18
Future Vol, veh/h	7	0	2	7	18	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	0	2	8	20	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	41	29	39	0	-	0
Stage 1	29	-	-	-	-	-
Stage 2	12	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	975	1051	1584	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	1016	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	974	1051	1584	-	-	-
Mov Cap-2 Maneuver	903	-	-	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	1016	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.02	1.62	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1584	-	903	-	-
HCM Lane V/C Ratio	0.001	-	0.008	-	-
HCM Control Delay (s/veh)	7.3	-	9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	0	2	2	0	18
Future Vol, veh/h	7	0	2	2	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	0	2	2	0	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	16	10	20	0	-	0
Stage 1	10	-	-	-	-	-
Stage 2	7	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1007	1078	1610	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1006	1078	1610	-	-	-
Mov Cap-2 Maneuver	924	-	-	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

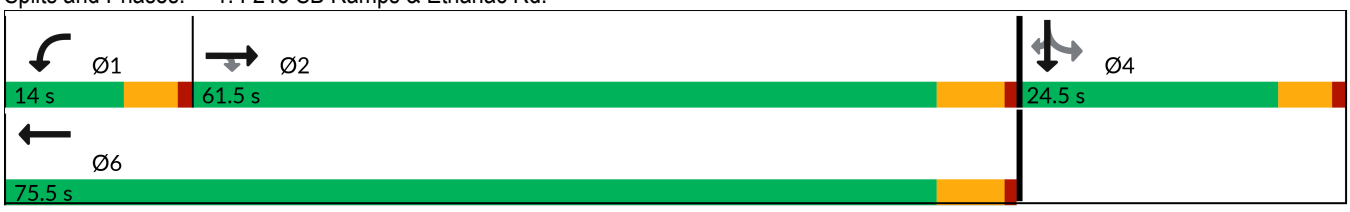
Approach	EB	NB	SB
HCM Control Delay, s/v	8.93	3.62	0
HCM LOS	A		

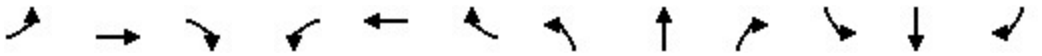
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1610	-	924	-	-
HCM Lane V/C Ratio	0.001	-	0.008	-	-
HCM Control Delay (s/veh)	7.2	-	8.9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	708	390	121	801	0	348
Future Volume (vph)	708	390	121	801	0	348
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	10.0	24.5	24.5	24.5
Total Split (s)	61.5	61.5	14.0	75.5	24.5	24.5
Total Split (%)	61.5%	61.5%	14.0%	75.5%	24.5%	24.5%
Yellow Time (s)	5.0	5.0	4.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	38.6	38.6	8.8	52.5	19.9	19.9
Actuated g/C Ratio	0.46	0.46	0.11	0.63	0.24	0.24
v/c Ratio	0.82	0.41	0.64	0.36	0.81	0.63
Control Delay (s/veh)	27.6	2.5	56.3	7.5	49.9	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.6	2.5	56.3	7.5	49.9	17.2
LOS	C	A	E	A	D	B
Approach Delay (s/veh)	18.8			14.0	33.5	
Approach LOS	B			B	C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 83.6	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 20.9	Intersection LOS: C
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	708	390	121	801	0	0	0	0	342	0	348
Future Volume (veh/h)	0	708	390	121	801	0	0	0	0	342	0	348
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	722	247	123	817	0				349	0	192
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	862	730	158	2212	0				414	0	368
Arrive On Green	0.00	0.45	0.45	0.09	0.61	0.00				0.23	0.00	0.23
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1810	0	1610
Grp Volume(v), veh/h	0	722	247	123	817	0				349	0	192
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	23.3	6.9	4.6	7.9	0.0				12.8	0.0	7.3
Cycle Q Clear(g_c), s	0.0	23.3	6.9	4.6	7.9	0.0				12.8	0.0	7.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	862	730	158	2212	0				414	0	368
V/C Ratio(X)	0.00	0.84	0.34	0.78	0.37	0.00				0.84	0.00	0.52
Avail Cap(c_a), veh/h	0	1518	1287	234	3612	0				508	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	16.7	12.2	31.0	6.7	0.0				25.6	0.0	23.5
Incr Delay (d2), s/veh	0.0	2.3	0.3	9.4	0.1	0.0				10.4	0.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.9	2.2	2.3	2.2	0.0				5.9	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	19.0	12.5	40.4	6.8	0.0				36.0	0.0	24.6
LnGrp LOS		B	B	D	A					D		C
Approach Vol, veh/h		969			940						541	
Approach Delay, s/veh		17.3			11.2						31.9	
Approach LOS		B			B						C	

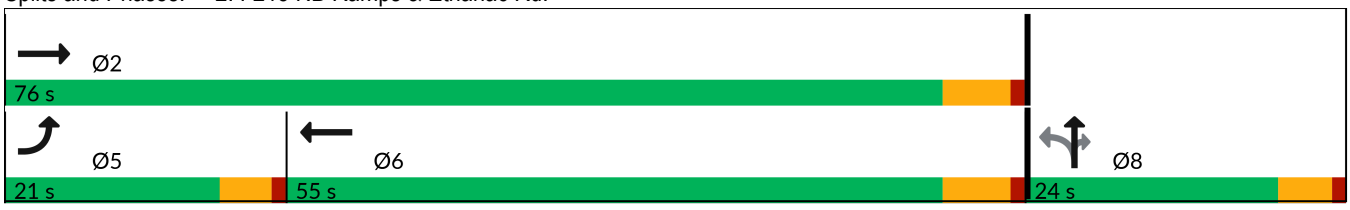
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.1	37.5		20.9		48.6
Change Period (Y+Rc), s	5.0	6.0		5.0		6.0
Max Green Setting (Gmax), s	9.0	55.5		19.5		69.5
Max Q Clear Time (g_c+I1), s	6.6	25.3		14.8		9.9
Green Ext Time (p_c), s	0.1	6.2		1.1		6.4

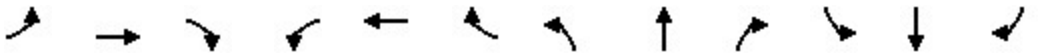
Intersection Summary		
HCM 7th Control Delay, s/veh		18.2
HCM 7th LOS		B

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	262	788	460	0	296
Future Volume (vph)	262	788	460	0	296
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.5	23.4	23.4	23.4
Total Split (s)	21.0	76.0	55.0	24.0	24.0
Total Split (%)	21.0%	76.0%	55.0%	24.0%	24.0%
Yellow Time (s)	4.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	15.7	57.3	36.5	19.3	19.3
Actuated g/C Ratio	0.18	0.65	0.42	0.22	0.22
v/c Ratio	0.83	0.65	0.88	1.19	0.56
Control Delay (s/veh)	59.0	11.7	35.8	141.8	12.9
Queue Delay	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	59.0	11.8	35.8	141.8	12.9
LOS	E	B	D	F	B
Approach Delay (s/veh)		23.6	35.8	91.5	
Approach LOS		C	D	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 87.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay (s/veh): 47.6	Intersection LOS: D
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	788	0	0	460	209	462	0	296	0	0	0
Future Volume (veh/h)	262	788	0	0	460	209	462	0	296	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	267	804	0	0	469	167	471	0	229			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	308	1199	0	0	534	190	423	0	376			
Arrive On Green	0.17	0.63	0.00	0.00	0.40	0.40	0.23	0.00	0.23			
Sat Flow, veh/h	1810	1900	0	0	1338	476	1810	0	1610			
Grp Volume(v), veh/h	267	804	0	0	0	636	471	0	229			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	0	1814	1810	0	1610			
Q Serve(g_s), s	11.7	22.0	0.0	0.0	0.0	26.4	19.0	0.0	10.3			
Cycle Q Clear(g_c), s	11.7	22.0	0.0	0.0	0.0	26.4	19.0	0.0	10.3			
Prop In Lane	1.00		0.00	0.00		0.26	1.00		1.00			
Lane Grp Cap(c), veh/h	308	1199	0	0	0	725	423	0	376			
V/C Ratio(X)	0.87	0.67	0.00	0.00	0.00	0.88	1.11	0.00	0.61			
Avail Cap(c_a), veh/h	356	1636	0	0	0	1093	423	0	376			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	32.8	9.6	0.0	0.0	0.0	22.6	31.2	0.0	27.8			
Incr Delay (d2), s/veh	17.9	0.7	0.0	0.0	0.0	5.6	78.5	0.0	2.8			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.4	7.2	0.0	0.0	0.0	11.1	16.6	0.0	3.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.8	10.3	0.0	0.0	0.0	28.1	109.6	0.0	30.7			
LnGrp LOS	D	B				C	F		C			
Approach Vol, veh/h		1071			636			700				
Approach Delay, s/veh		20.3			28.1			83.8				
Approach LOS		C			C			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		57.3			18.8	38.5		24.0				
Change Period (Y+Rc), s		6.0			5.0	6.0		5.0				
Max Green Setting (Gmax), s		70.0			16.0	49.0		19.0				
Max Q Clear Time (g_c+I1), s		24.0			13.7	28.4		21.0				
Green Ext Time (p_c), s		6.6			0.2	4.1		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			40.9									
HCM 7th LOS			D									

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	946	137	22	599	69	55
Future Vol, veh/h	946	137	22	599	69	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	965	140	22	611	70	56

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1105	0	1691	1035
Stage 1	-	-	-	-	1035	-
Stage 2	-	-	-	-	656	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	639	-	104	284
Stage 1	-	-	-	-	345	-
Stage 2	-	-	-	-	520	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	639	-	100	284
Mov Cap-2 Maneuver	-	-	-	-	230	-
Stage 1	-	-	-	-	345	-
Stage 2	-	-	-	-	502	-

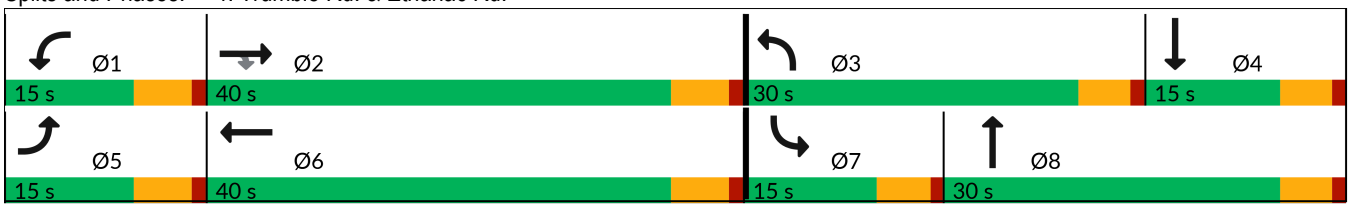
Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.38	32.99
HCM LOS			D

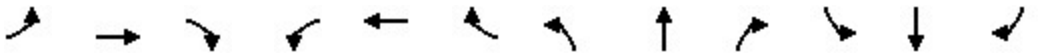
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	251	-	-	639	-
HCM Lane V/C Ratio	0.503	-	-	0.035	-
HCM Control Delay (s/veh)	33	-	-	10.8	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	2.6	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	66	831	15	28	444	77	2	16	7
Future Volume (vph)	66	831	15	28	444	77	2	16	7
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	7.4	39.8	39.8	6.3	36.5	8.1	13.7	5.9	7.7
Actuated g/C Ratio	0.11	0.59	0.59	0.09	0.54	0.12	0.20	0.09	0.11
v/c Ratio	0.36	0.79	0.02	0.18	0.47	0.38	0.18	0.11	0.40
Control Delay (s/veh)	39.1	26.6	0.0	38.0	19.5	38.0	8.8	38.4	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	39.1	26.6	0.0	38.0	19.5	38.0	8.8	38.4	13.0
LOS	D	C	A	D	B	D	A	D	B
Approach Delay (s/veh)		27.1			20.6		24.8		16.3
Approach LOS		C			C		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 67.5	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay (s/veh): 24.2	Intersection LOS: C
Intersection Capacity Utilization 72.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	831	15	28	444	13	77	2	61	16	7	100
Future Volume (veh/h)	66	831	15	28	444	13	77	2	61	16	7	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	70	884	16	30	472	14	82	2	60	17	7	82
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	954	805	59	877	26	111	6	169	37	9	103
Arrive On Green	0.06	0.50	0.50	0.03	0.48	0.48	0.06	0.11	0.11	0.02	0.07	0.07
Sat Flow, veh/h	1810	1900	1604	1810	1836	54	1810	52	1545	1810	128	1502
Grp Volume(v), veh/h	70	884	16	30	0	486	82	0	62	17	0	89
Grp Sat Flow(s),veh/h/ln	1810	1900	1604	1810	0	1890	1810	0	1597	1810	0	1630
Q Serve(g_s), s	2.3	26.4	0.3	1.0	0.0	11.0	2.7	0.0	2.2	0.6	0.0	3.3
Cycle Q Clear(g_c), s	2.3	26.4	0.3	1.0	0.0	11.0	2.7	0.0	2.2	0.6	0.0	3.3
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.97	1.00		0.92
Lane Grp Cap(c), veh/h	103	954	805	59	0	903	111	0	175	37	0	112
V/C Ratio(X)	0.68	0.93	0.02	0.51	0.00	0.54	0.74	0.00	0.35	0.46	0.00	0.80
Avail Cap(c_a), veh/h	288	1083	914	288	0	1078	746	0	658	300	0	270
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.1	14.1	7.6	29.0	0.0	11.2	28.1	0.0	25.1	29.5	0.0	27.9
Incr Delay (d2), s/veh	2.9	11.7	0.0	2.5	0.0	0.2	3.5	0.0	0.5	3.2	0.0	4.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	11.1	0.1	0.4	0.0	3.5	1.2	0.0	0.8	0.3	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.0	25.8	7.6	31.4	0.0	11.4	31.6	0.0	25.6	32.7	0.0	32.7
LnGrp LOS	C	C	A	C		B	C		C	C		C
Approach Vol, veh/h		970			516			144			106	
Approach Delay, s/veh		25.9			12.5			29.0			32.7	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	35.9	8.6	9.1	8.8	34.4	6.1	11.6
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	3.0	28.4	4.7	5.3	4.3	13.0	2.6	4.2
Green Ext Time (p_c), s	0.0	2.2	0.1	0.1	0.0	1.7	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	22.6
HCM 7th LOS	C

Intersection	
Int Delay, s/veh	14.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	177	710	24	7	336	4	48	6	14	7	7	101
Future Vol, veh/h	177	710	24	7	336	4	48	6	14	7	7	101
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	190	763	26	8	361	4	52	6	15	8	8	109

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	366	0	0	789	0	0	1537	1538	776	1526	1548	363
Stage 1	-	-	-	-	-	-	1157	1157	-	378	378	-
Stage 2	-	-	-	-	-	-	380	381	-	1147	1170	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1204	-	-	840	-	-	96	117	400	97	115	686
Stage 1	-	-	-	-	-	-	241	273	-	647	618	-
Stage 2	-	-	-	-	-	-	646	617	-	244	269	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1204	-	-	840	-	-	53	83	400	63	82	686
Mov Cap-2 Maneuver	-	-	-	-	-	-	53	83	-	63	82	-
Stage 1	-	-	-	-	-	-	173	196	-	640	611	-
Stage 2	-	-	-	-	-	-	531	610	-	163	193	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.66	0.19	240.25	22
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	67	347	-	-	36	-	-	334
HCM Lane V/C Ratio	1.085	0.158	-	-	0.009	-	-	0.371
HCM Control Delay (s/veh)	240.3	8.6	0	-	9.3	0	-	22
HCM Lane LOS	F	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	5.6	0.6	-	-	0	-	-	1.7

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	2	0	19	10	10
Future Vol, veh/h	19	2	0	19	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	2	0	21	11	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	37	16	22	0	-	0
Stage 1	16	-	-	-	-	-
Stage 2	21	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	981	1069	1607	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	981	1069	1607	-	-	-
Mov Cap-2 Maneuver	908	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.01	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1607	-	921	-	-
HCM Lane V/C Ratio	-	-	0.025	-	-
HCM Control Delay (s/veh)	0	-	9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	2	0	0	2	10
Future Vol, veh/h	19	2	0	0	2	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	2	0	0	2	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	8	8	13	0	-	0
Stage 1	8	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1019	1080	1619	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1019	1080	1619	-	-	-
Mov Cap-2 Maneuver	932	-	-	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.91	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1619	-	944	-	-
HCM Lane V/C Ratio	-	-	0.024	-	-
HCM Control Delay (s/veh)	0	-	8.9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

APPENDIX 5.2: E+P CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		E+P
				CALC JB	DATE	05/13/24
Jurisdiction: **City of Menifee**				CHK JB	DATE	05/13/24
Major Street: **Sherman Road**				Critical Approach Speed (Major)		40 mph
Minor Street: **Driveway 1**				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **328** vpd Minor Street Future ADT = **114** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied: XX / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **328** / *1* **114**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **328** / *1* **114**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX				
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 4% B: 3%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P
				CALC JB	DATE 05/13/24
Jurisdiction: **City of Menifee**				CHK JB	DATE 05/13/24
Major Street: **Sherman Road**				Critical Approach Speed (Major)	40 mph
Minor Street: **Driveway 2**				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **128** vpd Minor Street Future ADT = **114** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **128** / *1* **114**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **128** / *1* **114**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 2% B: 1%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

APPENDIX 5.3: E+P CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	799	648	139	690	192	366
v/c Ratio	0.82	0.56	0.65	0.27	0.61	0.69
Control Delay (s/veh)	25.9	3.1	55.7	5.4	43.3	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.9	3.1	55.7	5.4	43.3	15.9
Queue Length 50th (ft)	332	0	73	61	97	32
Queue Length 95th (ft)	551	50	#186	102	182	132
Internal Link Dist (ft)	624			681	1327	
Turn Bay Length (ft)			275			240
Base Capacity (vph)	1284	1301	225	2980	452	627
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.50	0.62	0.23	0.42	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	316	687	794	310	167
v/c Ratio	0.93	0.52	0.94	0.89	0.37
Control Delay (s/veh)	76.1	8.7	44.7	68.7	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	76.1	8.7	44.7	68.7	8.3
Queue Length 50th (ft)	202	179	440	195	0
Queue Length 95th (ft)	#373	257	#697	#352	55
Internal Link Dist (ft)		681	457	1327	
Turn Bay Length (ft)	245				270
Base Capacity (vph)	338	1387	906	359	454
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.93	0.50	0.88	0.86	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	722	398	123	817	349	355
v/c Ratio	0.82	0.41	0.64	0.36	0.81	0.63
Control Delay (s/veh)	27.6	2.5	56.3	7.5	49.9	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.6	2.5	56.3	7.5	49.9	17.2
Queue Length 50th (ft)	312	0	62	94	172	52
Queue Length 95th (ft)	446	40	#171	122	#406	173
Internal Link Dist (ft)	624			681	1327	
Turn Bay Length (ft)			275			240
Base Capacity (vph)	1284	1220	197	3037	428	562
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.33	0.62	0.27	0.82	0.63

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	267	804	682	471	302
v/c Ratio	0.82	0.64	0.87	1.18	0.55
Control Delay (s/veh)	59.0	11.6	35.7	141.8	12.9
Queue Delay	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	59.0	11.7	35.7	141.8	12.9
Queue Length 50th (ft)	144	233	323	~322	28
Queue Length 95th (ft)	#321	335	473	#594	118
Internal Link Dist (ft)		681	457	1327	
Turn Bay Length (ft)	245				270
Base Capacity (vph)	333	1537	1044	396	542
Starvation Cap Reductn	0	111	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.56	0.65	1.19	0.56

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 5.4: E+ P CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	89	551	50	7	470	6	17	2	5	2	4	98
Future Vol, veh/h	89	551	50	7	470	6	17	2	5	2	4	98
Conflicting Peds, #/hr	0	0	3	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	98	605	55	8	516	7	19	2	5	2	4	108

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	523	0	0	663	0	0	1366	1370	636	1337	1394	520
Stage 1	-	-	-	-	-	-	832	832	-	535	535	-
Stage 2	-	-	-	-	-	-	534	538	-	802	859	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1054	-	-	935	-	-	126	148	481	131	143	560
Stage 1	-	-	-	-	-	-	367	387	-	533	527	-
Stage 2	-	-	-	-	-	-	533	525	-	380	376	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1054	-	-	932	-	-	88	132	480	116	128	560
Mov Cap-2 Maneuver	-	-	-	-	-	-	190	235	-	116	128	-
Stage 1	-	-	-	-	-	-	332	350	-	528	523	-
Stage 2	-	-	-	-	-	-	424	521	-	339	340	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.13	0.13	23.42	15.23
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	222	1054	-	-	932	-	-	466
HCM Lane V/C Ratio	0.119	0.093	-	-	0.008	-	-	0.245
HCM Control Delay (s/veh)	23.4	8.8	-	-	8.9	-	-	15.2
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0.3	-	-	0	-	-	1

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	177	710	24	7	336	4	48	6	14	7	7	101
Future Vol, veh/h	177	710	24	7	336	4	48	6	14	7	7	101
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	190	763	26	8	361	4	52	6	15	8	8	109

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	366	0	0	789	0	0	1537	1538	776	1526	1548	363
Stage 1	-	-	-	-	-	-	1157	1157	-	378	378	-
Stage 2	-	-	-	-	-	-	380	381	-	1147	1170	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.5	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.7	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.7	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.3	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1204	-	-	840	-	-	127	117	400	97	115	686
Stage 1	-	-	-	-	-	-	283	273	-	647	618	-
Stage 2	-	-	-	-	-	-	708	617	-	244	269	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1204	-	-	840	-	-	86	98	400	76	96	686
Mov Cap-2 Maneuver	-	-	-	-	-	-	171	175	-	153	178	-
Stage 1	-	-	-	-	-	-	239	230	-	642	613	-
Stage 2	-	-	-	-	-	-	583	611	-	192	227	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.66	0.19	34.2	14.68
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	195	1204	-	-	840	-	-	495
HCM Lane V/C Ratio	0.376	0.158	-	-	0.009	-	-	0.25
HCM Control Delay (s/veh)	34.2	8.6	-	-	9.3	-	-	14.7
HCM Lane LOS	D	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.6	0.6	-	-	0	-	-	1

APPENDIX 6.1: EAC (2026) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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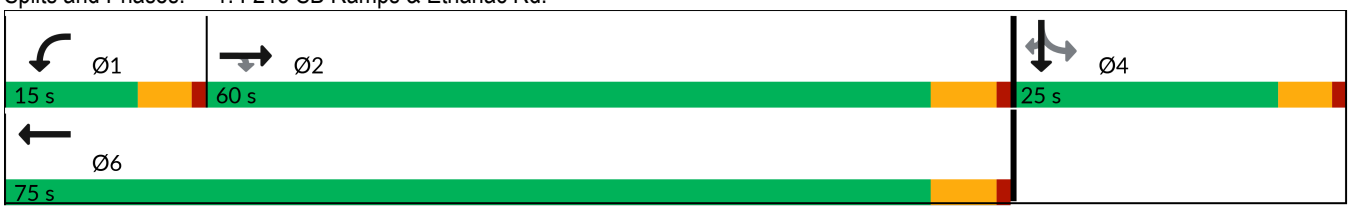
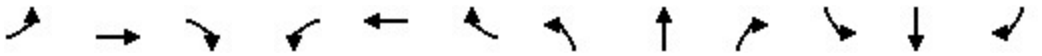
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1557	1060	208	1508	0	1011
Future Volume (vph)	1557	1060	208	1508	0	1011
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	10.0	24.5	24.5	24.5
Total Split (s)	60.0	60.0	15.0	75.0	25.0	25.0
Total Split (%)	60.0%	60.0%	15.0%	75.0%	25.0%	25.0%
Yellow Time (s)	5.0	5.0	4.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	54.0	54.0	10.0	69.0	20.0	20.0
Actuated g/C Ratio	0.54	0.54	0.10	0.69	0.20	0.20
v/c Ratio	1.63	0.99	1.24	0.65	1.80	2.77
Control Delay (s/veh)	311.5	39.1	187.0	10.2	400.6	822.8
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	311.5	39.1	187.0	10.5	400.6	822.8
LOS	F	D	F	B	F	F
Approach Delay (s/veh)	201.2			32.0	664.6	
Approach LOS	F			C	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.77	
Intersection Signal Delay (s/veh): 278.3	Intersection LOS: F
Intersection Capacity Utilization 177.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1557	1060	208	1508	0	0	0	0	606	0	1011
Future Volume (veh/h)	0	1557	1060	208	1508	0	0	0	0	606	0	1011
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1674	1003	224	1622	0				652	0	934
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1026	869	181	2491	0				362	0	322
Arrive On Green	0.00	0.54	0.54	0.10	0.69	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1810	0	1610
Grp Volume(v), veh/h	0	1674	1003	224	1622	0				652	0	934
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	54.0	54.0	10.0	25.3	0.0				20.0	0.0	20.0
Cycle Q Clear(g_c), s	0.0	54.0	54.0	10.0	25.3	0.0				20.0	0.0	20.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1026	869	181	2491	0				362	0	322
V/C Ratio(X)	0.00	1.63	1.15	1.24	0.65	0.00				1.80	0.00	2.90
Avail Cap(c_a), veh/h	0	1026	869	181	2491	0				362	0	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.0	23.0	45.0	8.7	0.0				40.0	0.0	40.0
Incr Delay (d2), s/veh	0.0	288.7	82.2	145.2	0.6	0.0				371.6	0.0	863.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	103.3	37.7	11.6	8.0	0.0				45.6	0.0	84.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	311.7	105.2	190.2	9.3	0.0				411.6	0.0	903.6
LnGrp LOS		F	F	F	A					F		F
Approach Vol, veh/h		2677			1846						1586	
Approach Delay, s/veh		234.3			31.3						701.3	
Approach LOS		F			C						F	

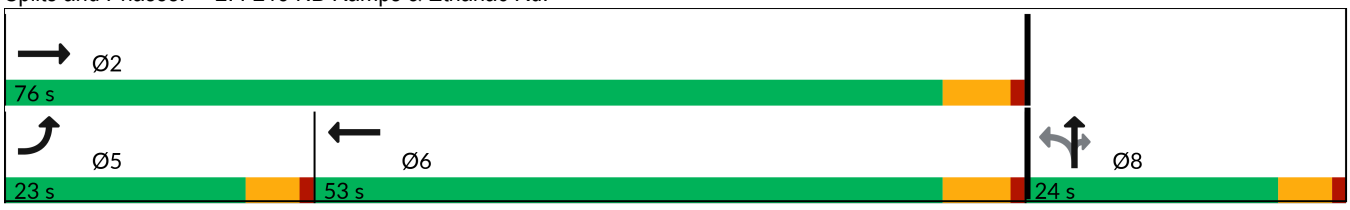
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.0	60.0		25.0		75.0
Change Period (Y+Rc), s	5.0	6.0		5.0		6.0
Max Green Setting (Gmax), s	10.0	54.0		20.0		69.0
Max Q Clear Time (g_c+I1), s	12.0	56.0		22.0		27.3
Green Ext Time (p_c), s	0.0	0.0		0.0		17.5

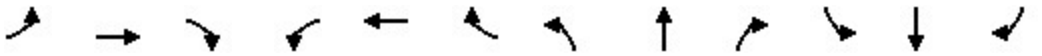
Intersection Summary		
HCM 7th Control Delay, s/veh		294.2
HCM 7th LOS		F

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	789	1374	844	3	436
Future Volume (vph)	789	1374	844	3	436
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.5	23.4	23.4	23.4
Total Split (s)	23.0	76.0	53.0	24.0	24.0
Total Split (%)	23.0%	76.0%	53.0%	24.0%	24.0%
Yellow Time (s)	4.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	18.0	70.0	47.0	19.0	19.0
Actuated g/C Ratio	0.18	0.70	0.47	0.19	0.19
v/c Ratio	2.59	1.10	1.59	2.70	1.23
Control Delay (s/veh)	744.5	74.3	295.8	793.0	155.0
Queue Delay	0.0	0.5	0.0	0.0	0.0
Total Delay (s/veh)	744.5	74.8	295.8	793.0	155.0
LOS	F	E	F	F	F
Approach Delay (s/veh)		319.0	295.8	580.5	
Approach LOS		F	F	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.70	
Intersection Signal Delay (s/veh): 384.4	Intersection LOS: F
Intersection Capacity Utilization 177.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	789	1374	0	0	844	458	870	3	436	0	0	0
Future Volume (veh/h)	789	1374	0	0	844	458	870	3	436	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	839	1462	0	0	898	432	926	3	400			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	326	1330	0	0	570	274	343	1	306			
Arrive On Green	0.18	0.70	0.00	0.00	0.47	0.47	0.19	0.19	0.19			
Sat Flow, veh/h	1810	1900	0	0	1212	583	1804	6	1610			
Grp Volume(v), veh/h	839	1462	0	0	0	1330	929	0	400			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	0	1795	1810	0	1610			
Q Serve(g_s), s	18.0	70.0	0.0	0.0	0.0	47.0	19.0	0.0	19.0			
Cycle Q Clear(g_c), s	18.0	70.0	0.0	0.0	0.0	47.0	19.0	0.0	19.0			
Prop In Lane	1.00		0.00	0.00		0.32	1.00		1.00			
Lane Grp Cap(c), veh/h	326	1330	0	0	0	844	344	0	306			
V/C Ratio(X)	2.58	1.10	0.00	0.00	0.00	1.58	2.70	0.00	1.31			
Avail Cap(c_a), veh/h	326	1330	0	0	0	844	344	0	306			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.0	15.0	0.0	0.0	0.0	26.5	40.5	0.0	40.5			
Incr Delay (d2), s/veh	718.1	56.5	0.0	0.0	0.0	265.1	774.0	0.0	160.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	72.7	43.0	0.0	0.0	0.0	80.2	81.8	0.0	20.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	759.1	71.5	0.0	0.0	0.0	291.6	814.5	0.0	200.5			
LnGrp LOS	F	F				F	F		F			
Approach Vol, veh/h		2301			1330			1329				
Approach Delay, s/veh		322.2			291.6			629.7				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.0			23.0	53.0		24.0				
Change Period (Y+Rc), s		6.0			5.0	6.0		5.0				
Max Green Setting (Gmax), s		70.0			18.0	47.0		19.0				
Max Q Clear Time (g_c+I1), s		72.0			20.0	49.0		21.0				
Green Ext Time (p_c), s		0.0			0.0	0.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			396.4									
HCM 7th LOS			F									

Intersection	
Int Delay, s/veh	90

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1718	92	37	1085	216	30
Future Vol, veh/h	1718	92	37	1085	216	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1867	100	40	1179	235	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1967	0	3177	1917
Stage 1	-	-	-	-	1917	-
Stage 2	-	-	-	-	1260	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	299	-	~ 12	85
Stage 1	-	-	-	-	~ 128	-
Stage 2	-	-	-	-	270	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	299	-	~ 10	85
Mov Cap-2 Maneuver	-	-	-	-	~ 80	-
Stage 1	-	-	-	-	~ 128	-
Stage 2	-	-	-	-	~ 233	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.62	$ 1159.47
HCM LOS			F

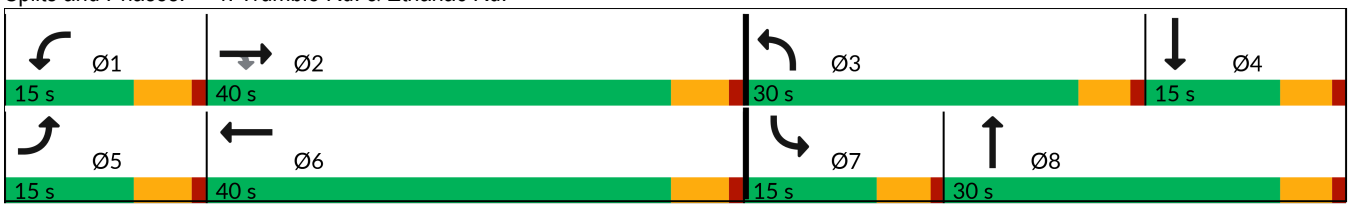
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	80	-	-	299	-
HCM Lane V/C Ratio	3.331	-	-	0.134	-
HCM Control Delay (s/veh)	$ 1159.5	-	-	18.9	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	27.1	-	-	0.5	-

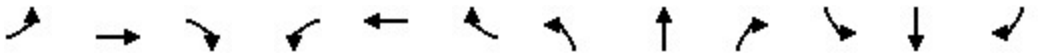
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	123	2187	6	49	987	70	8	22	11
Future Volume (vph)	123	2187	6	49	987	70	8	22	11
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	9.1	42.5	42.5	6.9	35.5	7.9	12.0	5.9	8.1
Actuated g/C Ratio	0.12	0.54	0.54	0.09	0.45	0.10	0.15	0.07	0.10
v/c Ratio	0.65	2.35	0.01	0.34	1.32	0.43	0.19	0.18	0.56
Control Delay (s/veh)	52.5	626.3	0.0	43.1	176.1	43.4	12.9	41.4	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.5	626.3	0.0	43.1	176.1	43.4	12.9	41.4	14.3
LOS	D	F	A	D	F	D	B	D	B
Approach Delay (s/veh)		594.1			170.0		30.5		17.6
Approach LOS		F			F		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 78.9	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.35	
Intersection Signal Delay (s/veh): 424.3	Intersection LOS: F
Intersection Capacity Utilization 141.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	2187	6	49	987	33	70	8	43	22	11	148
Future Volume (veh/h)	123	2187	6	49	987	33	70	8	43	22	11	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	135	2403	7	54	1085	36	77	9	45	24	12	156
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	170	963	816	81	837	28	101	42	211	47	14	187
Arrive On Green	0.09	0.51	0.51	0.04	0.46	0.46	0.06	0.15	0.15	0.03	0.12	0.12
Sat Flow, veh/h	1810	1900	1610	1810	1828	61	1810	275	1377	1810	116	1512
Grp Volume(v), veh/h	135	2403	7	54	0	1121	77	0	54	24	0	168
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1889	1810	0	1652	1810	0	1628
Q Serve(g_s), s	5.5	38.4	0.2	2.2	0.0	34.7	3.2	0.0	2.2	1.0	0.0	7.6
Cycle Q Clear(g_c), s	5.5	38.4	0.2	2.2	0.0	34.7	3.2	0.0	2.2	1.0	0.0	7.6
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.83	1.00		0.93
Lane Grp Cap(c), veh/h	170	963	816	81	0	864	101	0	253	47	0	202
V/C Ratio(X)	0.79	2.50	0.01	0.67	0.00	1.30	0.77	0.00	0.21	0.51	0.00	0.83
Avail Cap(c_a), veh/h	231	963	816	231	0	864	599	0	547	241	0	217
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.6	18.7	9.3	35.7	0.0	20.6	35.3	0.0	28.1	36.4	0.0	32.5
Incr Delay (d2), s/veh	8.7	676.1	0.0	3.5	0.0	142.2	4.5	0.0	0.2	3.1	0.0	20.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	194.2	0.0	1.0	0.0	46.7	1.5	0.0	0.8	0.5	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.3	694.9	9.3	39.1	0.0	162.7	39.8	0.0	28.3	39.5	0.0	53.0
LnGrp LOS	D	F	A	D		F	D		C	D		D
Approach Vol, veh/h		2545			1175			131			192	
Approach Delay, s/veh		658.4			157.1			35.0			51.3	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	43.7	9.1	14.3	12.4	40.0	6.9	16.5
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	4.2	40.4	5.2	9.6	7.5	36.7	3.0	4.2
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	463.6
HCM 7th LOS	F

Intersection	
Int Delay, s/veh	11827.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	112	1577	525	83	807	11	150	13	22	22	55	115
Future Vol, veh/h	112	1577	525	83	807	11	150	13	22	22	55	115
Conflicting Peds, #/hr	0	0	3	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	123	1733	577	91	887	12	165	14	24	24	60	126

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	899	0	0	2313	0	0	3370	3352	2024	3062	3634	893
Stage 1	-	-	-	-	-	-	2271	2271	-	1075	1075	-
Stage 2	-	-	-	-	-	-	1099	1081	-	1986	2559	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	764	-	-	219	-	-	~ 5	~ 8	73	~ 8	~ 5	343
Stage 1	-	-	-	-	-	-	~ 54	77	-	268	298	-
Stage 2	-	-	-	-	-	-	260	296	-	80	~ 54	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	764	-	-	219	-	-	~ 0	~ 1	73	~ 1	~ 1	343
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 0	~ 1	-	~ 1	~ 1	-
Stage 1	-	-	-	-	-	-	~ 54	77	-	44	~ 49	-
Stage 2	-	-	-	-	-	-	-	49	-	44	~ 54	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.54	3.02	$ 173960.69	$ 47468.88
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1	~ 87	-	-	109	-	-	2
HCM Lane V/C Ratio	359.738	0.161	-	-	0.417	-	-	99.061
HCM Control Delay (s/veh)	$ 173960.7	10.6	0	-	32.7	0	-	$ 47468.9
HCM Lane LOS	F	B	A	-	D	A	-	F
HCM 95th %tile Q(veh)	28.1	0.6	-	-	1.9	-	-	28.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	0	2	160	610	28
Future Vol, veh/h	15	0	2	160	610	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	16	0	2	174	663	30

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	857	678	693	0	-	0
Stage 1	678	-	-	-	-	-
Stage 2	178	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	331	456	911	-	-	-
Stage 1	508	-	-	-	-	-
Stage 2	857	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	330	456	911	-	-	-
Mov Cap-2 Maneuver	422	-	-	-	-	-
Stage 1	507	-	-	-	-	-
Stage 2	857	-	-	-	-	-

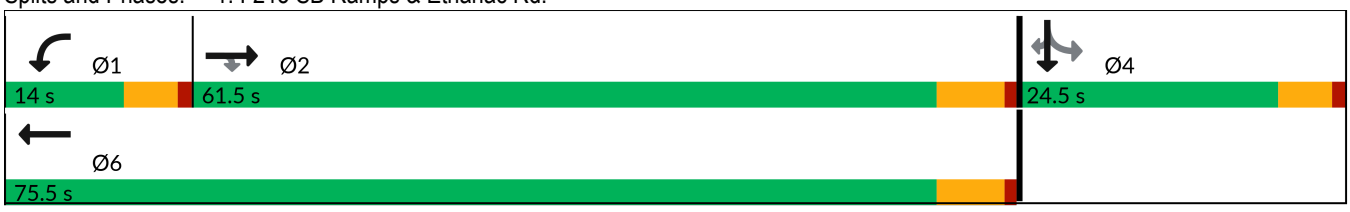
Approach	EB	NB	SB
HCM Control Delay, s/v	13.87	0.11	0
HCM LOS	B		

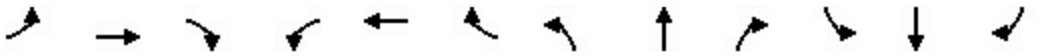
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	911	-	422	-	-
HCM Lane V/C Ratio	0.002	-	0.039	-	-
HCM Control Delay (s/veh)	9	-	13.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1734	1025	392	1755	0	971
Future Volume (vph)	1734	1025	392	1755	0	971
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	10.0	24.5	24.5	24.5
Total Split (s)	61.5	61.5	14.0	75.5	24.5	24.5
Total Split (%)	61.5%	61.5%	14.0%	75.5%	24.5%	24.5%
Yellow Time (s)	5.0	5.0	4.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	55.5	55.5	9.0	69.5	19.5	19.5
Actuated g/C Ratio	0.56	0.56	0.09	0.70	0.20	0.20
v/c Ratio	1.67	0.92	2.46	0.71	2.10	2.58
Control Delay (s/veh)	331.7	25.0	701.1	11.2	531.0	737.8
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay (s/veh)	331.7	25.0	701.1	11.6	531.0	737.8
LOS	F	C	F	B	F	F
Approach Delay (s/veh)	217.8			137.6	649.5	
Approach LOS	F			F	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.58	
Intersection Signal Delay (s/veh): 302.6	Intersection LOS: F
Intersection Capacity Utilization 304.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1734	1025	392	1755	0	0	0	0	724	0	971
Future Volume (veh/h)	0	1734	1025	392	1755	0	0	0	0	724	0	971
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1769	895	400	1791	0				739	0	828
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1055	894	163	2509	0				353	0	314
Arrive On Green	0.00	0.56	0.56	0.09	0.69	0.00				0.19	0.00	0.19
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1810	0	1610
Grp Volume(v), veh/h	0	1769	895	400	1791	0				739	0	828
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	55.5	55.5	9.0	30.0	0.0				19.5	0.0	19.5
Cycle Q Clear(g_c), s	0.0	55.5	55.5	9.0	30.0	0.0				19.5	0.0	19.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1055	894	163	2509	0				353	0	314
V/C Ratio(X)	0.00	1.68	1.00	2.46	0.71	0.00				2.09	0.00	2.64
Avail Cap(c_a), veh/h	0	1055	894	163	2509	0				353	0	314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.3	22.3	45.5	9.2	0.0				40.3	0.0	40.2
Incr Delay (d2), s/veh	0.0	309.1	30.5	673.4	1.0	0.0				502.0	0.0	745.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	111.9	25.7	34.4	9.5	0.0				57.2	0.0	72.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	331.3	52.7	718.9	10.2	0.0				542.3	0.0	786.1
LnGrp LOS		F	F	F	B					F		F
Approach Vol, veh/h		2664			2191						1567	
Approach Delay, s/veh		237.7			139.6						671.1	
Approach LOS		F			F						F	

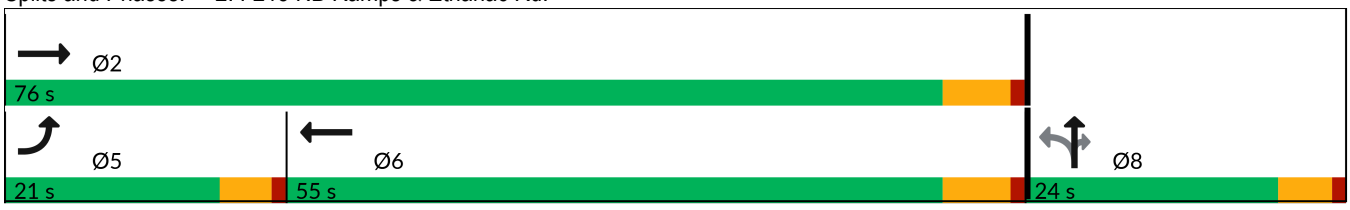
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.0	61.5		24.5		75.5
Change Period (Y+Rc), s	5.0	6.0		5.0		6.0
Max Green Setting (Gmax), s	9.0	55.5		19.5		69.5
Max Q Clear Time (g_c+I1), s	11.0	57.5		21.5		32.0
Green Ext Time (p_c), s	0.0	0.0		0.0		19.6

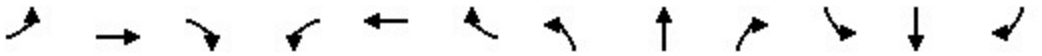
Intersection Summary		
HCM 7th Control Delay, s/veh		310.0
HCM 7th LOS		F

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	932	1527	1108	0	486
Future Volume (vph)	932	1527	1108	0	486
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.5	23.4	23.4	23.4
Total Split (s)	21.0	76.0	55.0	24.0	24.0
Total Split (%)	21.0%	76.0%	55.0%	24.0%	24.0%
Yellow Time (s)	4.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	16.0	70.0	49.0	19.0	19.0
Actuated g/C Ratio	0.16	0.70	0.49	0.19	0.19
v/c Ratio	3.30	1.17	2.01	3.10	1.32
Control Delay (s/veh)	Error	104.0	478.4	969.8	188.9
Queue Delay	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	Error	104.2	478.4	969.8	188.9
LOS	F	F	F	F	F
Approach Delay (s/veh)		467.0	478.4	720.8	
Approach LOS		F	F	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.30	
Intersection Signal Delay (s/veh): 537.7	Intersection LOS: F
Intersection Capacity Utilization 304.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	932	1527	0	0	1108	672	1039	0	486	0	0	0
Future Volume (veh/h)	932	1527	0	0	1108	672	1039	0	486	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	951	1558	0	0	1131	640	1060	0	423			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	290	1330	0	0	558	316	344	0	306			
Arrive On Green	0.16	0.70	0.00	0.00	0.49	0.49	0.19	0.00	0.19			
Sat Flow, veh/h	1810	1900	0	0	1139	645	1810	0	1610			
Grp Volume(v), veh/h	951	1558	0	0	0	1771	1060	0	423			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	0	1784	1810	0	1610			
Q Serve(g_s), s	16.0	70.0	0.0	0.0	0.0	49.0	19.0	0.0	19.0			
Cycle Q Clear(g_c), s	16.0	70.0	0.0	0.0	0.0	49.0	19.0	0.0	19.0			
Prop In Lane	1.00		0.00	0.00		0.36	1.00		1.00			
Lane Grp Cap(c), veh/h	290	1330	0	0	0	874	344	0	306			
V/C Ratio(X)	3.28	1.17	0.00	0.00	0.00	2.03	3.08	0.00	1.38			
Avail Cap(c_a), veh/h	290	1330	0	0	0	874	344	0	306			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	42.0	15.0	0.0	0.0	0.0	25.5	40.5	0.0	40.5			
Incr Delay (d2), s/veh	1037.0	85.5	0.0	0.0	0.0	465.7	945.1	0.0	191.3			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	90.3	53.7	0.0	0.0	0.0	131.6	98.1	0.0	23.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	1079.0	100.5	0.0	0.0	0.0	491.2	985.6	0.0	231.8			
LnGrp LOS	F	F				F	F		F			
Approach Vol, veh/h		2509			1771			1483				
Approach Delay, s/veh		471.4			491.2			770.6				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.0			21.0	55.0		24.0				
Change Period (Y+Rc), s		6.0			5.0	6.0		5.0				
Max Green Setting (Gmax), s		70.0			16.0	49.0		19.0				
Max Q Clear Time (g_c+I1), s		72.0			18.0	51.0		21.0				
Green Ext Time (p_c), s		0.0			0.0	0.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			554.5									
HCM 7th LOS			F									

Intersection	
Int Delay, s/veh	109.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1850	163	23	1561	218	57
Future Vol, veh/h	1850	163	23	1561	218	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1888	166	23	1593	222	58

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2054	0	3611	1971
Stage 1	-	-	-	-	1971	-
Stage 2	-	-	-	-	1640	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	277	-	~ 6	79
Stage 1	-	-	-	-	~ 120	-
Stage 2	-	-	-	-	~ 176	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	277	-	~ 6	79
Mov Cap-2 Maneuver	-	-	-	-	~ 65	-
Stage 1	-	-	-	-	~ 120	-
Stage 2	-	-	-	-	~ 161	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.28	$ 1539.06
HCM LOS			F

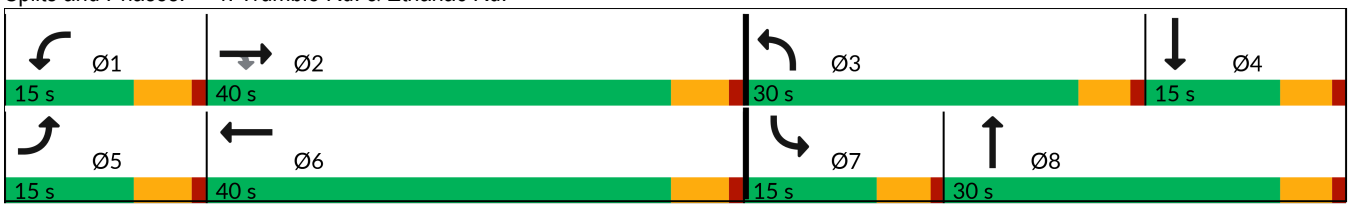
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	68	-	-	277	-
HCM Lane V/C Ratio	4.142	-	-	0.085	-
HCM Control Delay (s/veh)	$ 1539.1	-	-	19.2	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	30.1	-	-	0.3	-

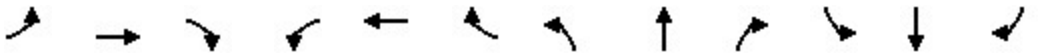
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	81	1955	16	36	2099	80	2	31	7
Future Volume (vph)	81	1955	16	36	2099	80	2	31	7
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	7.9	43.4	43.4	6.7	40.0	8.4	14.2	6.5	8.2
Actuated g/C Ratio	0.11	0.59	0.59	0.09	0.54	0.11	0.19	0.09	0.11
v/c Ratio	0.45	1.86	0.02	0.23	2.19	0.41	0.19	0.21	0.48
Control Delay (s/veh)	44.1	412.0	0.0	41.0	556.9	41.7	9.9	40.9	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	44.1	412.0	0.0	41.0	556.9	41.7	9.9	40.9	13.2
LOS	D	F	A	D	F	D	A	D	B
Approach Delay (s/veh)		394.3			548.4		27.5		18.4
Approach LOS		F			F		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 73.8	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.19	
Intersection Signal Delay (s/veh): 442.1	Intersection LOS: F
Intersection Capacity Utilization 136.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	1955	16	36	2099	18	80	2	63	31	7	129
Future Volume (veh/h)	81	1955	16	36	2099	18	80	2	63	31	7	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	86	2080	17	38	2233	19	85	2	62	33	7	113
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	985	832	67	930	8	111	6	186	61	9	141
Arrive On Green	0.06	0.52	0.52	0.04	0.49	0.49	0.06	0.12	0.12	0.03	0.09	0.09
Sat Flow, veh/h	1810	1900	1604	1810	1881	16	1810	50	1548	1810	95	1530
Grp Volume(v), veh/h	86	2080	17	38	0	2252	85	0	64	33	0	120
Grp Sat Flow(s),veh/h/ln	1810	1900	1604	1810	0	1897	1810	0	1598	1810	0	1625
Q Serve(g_s), s	3.3	36.4	0.4	1.5	0.0	34.7	3.2	0.0	2.6	1.3	0.0	5.1
Cycle Q Clear(g_c), s	3.3	36.4	0.4	1.5	0.0	34.7	3.2	0.0	2.6	1.3	0.0	5.1
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.97	1.00		0.94
Lane Grp Cap(c), veh/h	111	985	832	67	0	937	111	0	192	61	0	150
V/C Ratio(X)	0.77	2.11	0.02	0.56	0.00	2.40	0.76	0.00	0.33	0.54	0.00	0.80
Avail Cap(c_a), veh/h	250	985	832	250	0	937	647	0	571	260	0	234
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	16.9	8.2	33.2	0.0	17.8	32.5	0.0	28.3	33.4	0.0	31.2
Incr Delay (d2), s/veh	4.2	503.7	0.0	2.7	0.0	634.3	4.1	0.0	0.4	2.7	0.0	4.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	149.8	0.1	0.6	0.0	176.9	1.5	0.0	0.9	0.6	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.7	520.6	8.2	36.0	0.0	652.1	36.5	0.0	28.7	36.1	0.0	36.0
LnGrp LOS	D	F	A	D		F	D		C	D		D
Approach Vol, veh/h		2183			2290			149			153	
Approach Delay, s/veh		497.5			641.8			33.2			36.0	
Approach LOS		F			F			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	41.7	9.2	11.4	9.6	40.0	7.3	13.3
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	3.5	38.4	5.2	7.1	5.3	36.7	3.3	4.6
Green Ext Time (p_c), s	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	537.5
HCM 7th LOS	F

Intersection	
Int Delay, s/veh	265443.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	205	1513	341	58	1473	25	543	60	93	20	40	110
Future Vol, veh/h	205	1513	341	58	1473	25	543	60	93	20	40	110
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	220	1627	367	62	1584	27	584	65	100	22	43	118

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1611	0	0	1994	0	0	3981	3987	1810	3822	4156	1597
Stage 1	-	-	-	-	-	-	2251	2251	-	1722	1722	-
Stage 2	-	-	-	-	-	-	1730	1735	-	2100	2434	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	411	-	-	292	-	-	~ 2	~ 3	~ 99	~ 2	~ 2	133
Stage 1	-	-	-	-	-	-	~ 56	79	-	115	145	-
Stage 2	-	-	-	-	-	-	~ 113	143	-	69	63	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	411	-	-	292	-	-	~ 0	0	~ 99	~ 2	0	133
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 0	0	-	~ 2	0	-
Stage 1	-	-	-	-	-	-	~ 56	79	-	115	0	-
Stage 2	-	-	-	-	-	-	~ 12	0	-	-	63	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	2.34	0.77	$ 1707332.84	$ 6729.95
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	~ 173	-	-	~ 30	-	-	12
HCM Lane V/C Ratio	3716.021	0.537	-	-	0.213	-	-	14.647
HCM Control Delay (s/veh)	$ 1707332.8	23.5	0	-	20.6	0	-	$ 6729.9
HCM Lane LOS	F	C	A	-	C	A	-	F
HCM 95th %tile Q(veh)	96.4	3.1	-	-	0.8	-	-	24.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	2	1	637	398	22
Future Vol, veh/h	29	2	1	637	398	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	32	2	1	692	433	24

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1139	445	457	0	-	0
Stage 1	445	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	225	618	1115	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	499	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	224	618	1115	-	-	-
Mov Cap-2 Maneuver	357	-	-	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	499	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	15.79	0.01	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1115	-	367	-	-
HCM Lane V/C Ratio	0.001	-	0.092	-	-
HCM Control Delay (s/veh)	8.2	-	15.8	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

APPENDIX 6.2: EAPC (2026) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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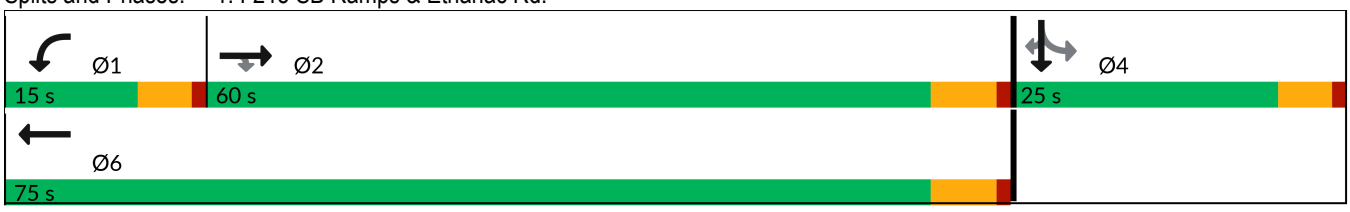
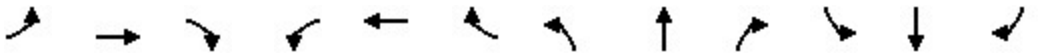
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1560	1060	212	1509	0	1011
Future Volume (vph)	1560	1060	212	1509	0	1011
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	10.0	24.5	24.5	24.5
Total Split (s)	60.0	60.0	15.0	75.0	25.0	25.0
Total Split (%)	60.0%	60.0%	15.0%	75.0%	25.0%	25.0%
Yellow Time (s)	5.0	5.0	4.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	54.0	54.0	10.0	69.0	20.0	20.0
Actuated g/C Ratio	0.54	0.54	0.10	0.69	0.20	0.20
v/c Ratio	1.63	0.99	1.26	0.65	1.85	2.77
Control Delay (s/veh)	312.8	39.2	194.9	10.2	421.0	822.8
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	312.8	39.2	194.9	10.5	421.0	822.8
LOS	F	D	F	B	F	F
Approach Delay (s/veh)	202.1			33.3	669.8	
Approach LOS	F			C	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.77	
Intersection Signal Delay (s/veh): 281.3	Intersection LOS: F
Intersection Capacity Utilization 178.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1560	1060	212	1509	0	0	0	0	622	0	1011
Future Volume (veh/h)	0	1560	1060	212	1509	0	0	0	0	622	0	1011
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1677	1003	228	1623	0				669	0	934
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1026	869	181	2491	0				362	0	322
Arrive On Green	0.00	0.54	0.54	0.10	0.69	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1810	0	1610
Grp Volume(v), veh/h	0	1677	1003	228	1623	0				669	0	934
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	54.0	54.0	10.0	25.3	0.0				20.0	0.0	20.0
Cycle Q Clear(g_c), s	0.0	54.0	54.0	10.0	25.3	0.0				20.0	0.0	20.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1026	869	181	2491	0				362	0	322
V/C Ratio(X)	0.00	1.63	1.15	1.26	0.65	0.00				1.85	0.00	2.90
Avail Cap(c_a), veh/h	0	1026	869	181	2491	0				362	0	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.0	23.0	45.0	8.7	0.0				40.0	0.0	40.0
Incr Delay (d2), s/veh	0.0	290.0	82.2	153.7	0.6	0.0				392.4	0.0	863.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	103.7	37.7	12.1	8.0	0.0				47.7	0.0	84.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	313.0	105.2	198.7	9.3	0.0				432.4	0.0	903.6
LnGrp LOS		F	F	F	A					F		F
Approach Vol, veh/h		2680			1851						1603	
Approach Delay, s/veh		235.2			32.7						706.9	
Approach LOS		F			C						F	

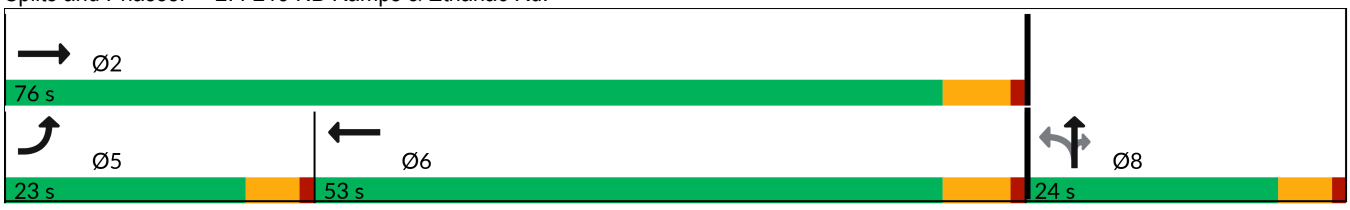
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.0	60.0		25.0		75.0
Change Period (Y+Rc), s	5.0	6.0		5.0		6.0
Max Green Setting (Gmax), s	10.0	54.0		20.0		69.0
Max Q Clear Time (g_c+I1), s	12.0	56.0		22.0		27.3
Green Ext Time (p_c), s	0.0	0.0		0.0		17.5

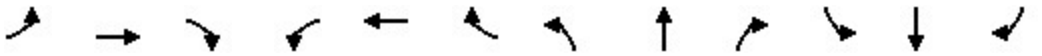
Intersection Summary	
HCM 7th Control Delay, s/veh	297.4
HCM 7th LOS	F

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	789	1393	849	3	447
Future Volume (vph)	789	1393	849	3	447
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.5	23.4	23.4	23.4
Total Split (s)	23.0	76.0	53.0	24.0	24.0
Total Split (%)	23.0%	76.0%	53.0%	24.0%	24.0%
Yellow Time (s)	4.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	18.0	70.0	47.0	19.0	19.0
Actuated g/C Ratio	0.18	0.70	0.47	0.19	0.19
v/c Ratio	2.59	1.11	1.61	2.70	1.26
Control Delay (s/veh)	744.5	80.3	302.7	793.0	167.5
Queue Delay	0.0	0.2	0.0	0.0	0.0
Total Delay (s/veh)	744.5	80.4	302.7	793.0	167.5
LOS	F	F	F	F	F
Approach Delay (s/veh)		320.5	302.7	581.1	
Approach LOS		F	F	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.70	
Intersection Signal Delay (s/veh): 387.1	Intersection LOS: F
Intersection Capacity Utilization 178.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	789	1393	0	0	849	464	870	3	447	0	0	0
Future Volume (veh/h)	789	1393	0	0	849	464	870	3	447	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	839	1482	0	0	903	439	926	3	412			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	326	1330	0	0	567	276	343	1	306			
Arrive On Green	0.18	0.70	0.00	0.00	0.47	0.47	0.19	0.19	0.19			
Sat Flow, veh/h	1810	1900	0	0	1207	587	1804	6	1610			
Grp Volume(v), veh/h	839	1482	0	0	0	1342	929	0	412			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	0	1794	1810	0	1610			
Q Serve(g_s), s	18.0	70.0	0.0	0.0	0.0	47.0	19.0	0.0	19.0			
Cycle Q Clear(g_c), s	18.0	70.0	0.0	0.0	0.0	47.0	19.0	0.0	19.0			
Prop In Lane	1.00		0.00	0.00		0.33	1.00		1.00			
Lane Grp Cap(c), veh/h	326	1330	0	0	0	843	344	0	306			
V/C Ratio(X)	2.58	1.11	0.00	0.00	0.00	1.59	2.70	0.00	1.35			
Avail Cap(c_a), veh/h	326	1330	0	0	0	843	344	0	306			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.0	15.0	0.0	0.0	0.0	26.5	40.5	0.0	40.5			
Incr Delay (d2), s/veh	718.1	62.3	0.0	0.0	0.0	271.7	774.0	0.0	176.2			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	72.7	45.2	0.0	0.0	0.0	81.7	81.8	0.0	22.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	759.1	77.3	0.0	0.0	0.0	298.2	814.5	0.0	216.7			
LnGrp LOS	F	F				F	F		F			
Approach Vol, veh/h		2321			1342			1341				
Approach Delay, s/veh		323.8			298.2			630.8				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.0			23.0	53.0		24.0				
Change Period (Y+Rc), s		6.0			5.0	6.0		5.0				
Max Green Setting (Gmax), s		70.0			18.0	47.0		19.0				
Max Q Clear Time (g_c+I1), s		72.0			20.0	49.0		21.0				
Green Ext Time (p_c), s		0.0			0.0	0.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			399.2									
HCM 7th LOS			F									

Intersection	
Int Delay, s/veh	93.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1748	92	37	1097	216	30
Future Vol, veh/h	1748	92	37	1097	216	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1900	100	40	1192	235	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2000	0	3223	1950
Stage 1	-	-	-	-	1950	-
Stage 2	-	-	-	-	1273	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	291	-	~ 11	81
Stage 1	-	-	-	-	~ 123	-
Stage 2	-	-	-	-	266	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	291	-	~ 9	81
Mov Cap-2 Maneuver	-	-	-	-	~ 77	-
Stage 1	-	-	-	-	~ 123	-
Stage 2	-	-	-	-	~ 229	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.63	$ 1215.85
HCM LOS			F

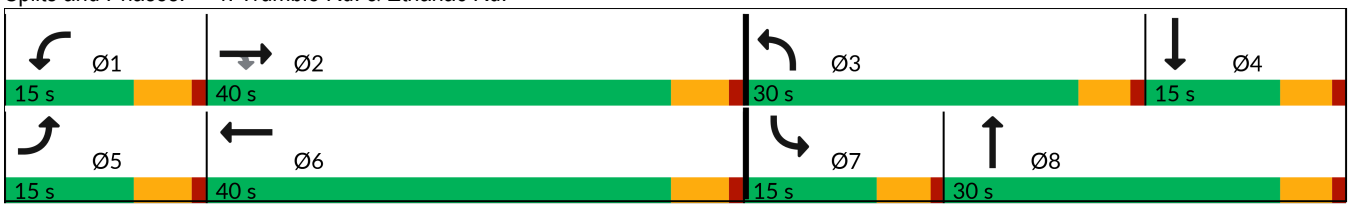
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	78	-	-	291	-
HCM Lane V/C Ratio	3.45	-	-	0.138	-
HCM Control Delay (s/veh)	$ 1215.9	-	-	19.4	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	27.4	-	-	0.5	-

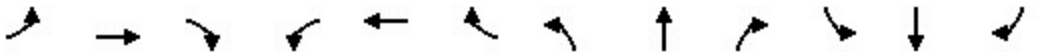
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	123	2217	6	49	999	70	8	22	11
Future Volume (vph)	123	2217	6	49	999	70	8	22	11
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	9.1	42.5	42.5	6.9	35.5	7.9	12.0	5.9	8.1
Actuated g/C Ratio	0.12	0.54	0.54	0.09	0.45	0.10	0.15	0.07	0.10
v/c Ratio	0.65	2.38	0.01	0.34	1.33	0.43	0.19	0.18	0.56
Control Delay (s/veh)	52.5	640.6	0.0	43.1	182.6	43.4	12.9	41.4	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.5	640.6	0.0	43.1	182.6	43.4	12.9	41.4	14.3
LOS	D	F	A	D	F	D	B	D	B
Approach Delay (s/veh)		608.1			176.3		30.5		17.6
Approach LOS		F			F		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 78.9	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.38	
Intersection Signal Delay (s/veh): 435.5	Intersection LOS: F
Intersection Capacity Utilization 143.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	2217	6	49	999	33	70	8	43	22	11	148
Future Volume (veh/h)	123	2217	6	49	999	33	70	8	43	22	11	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	135	2436	7	54	1098	36	77	9	45	24	12	156
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	170	963	816	81	837	27	101	42	211	47	14	187
Arrive On Green	0.09	0.51	0.51	0.04	0.46	0.46	0.06	0.15	0.15	0.03	0.12	0.12
Sat Flow, veh/h	1810	1900	1610	1810	1829	60	1810	275	1377	1810	116	1512
Grp Volume(v), veh/h	135	2436	7	54	0	1134	77	0	54	24	0	168
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1889	1810	0	1652	1810	0	1628
Q Serve(g_s), s	5.5	38.4	0.2	2.2	0.0	34.7	3.2	0.0	2.2	1.0	0.0	7.6
Cycle Q Clear(g_c), s	5.5	38.4	0.2	2.2	0.0	34.7	3.2	0.0	2.2	1.0	0.0	7.6
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.83	1.00		0.93
Lane Grp Cap(c), veh/h	170	963	816	81	0	864	101	0	253	47	0	202
V/C Ratio(X)	0.79	2.53	0.01	0.67	0.00	1.31	0.77	0.00	0.21	0.51	0.00	0.83
Avail Cap(c_a), veh/h	231	963	816	231	0	864	599	0	547	241	0	217
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.6	18.7	9.3	35.7	0.0	20.6	35.3	0.0	28.1	36.4	0.0	32.5
Incr Delay (d2), s/veh	8.7	691.5	0.0	3.5	0.0	148.6	4.5	0.0	0.2	3.1	0.0	20.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	198.3	0.0	1.0	0.0	48.2	1.5	0.0	0.8	0.5	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.3	710.2	9.3	39.1	0.0	169.2	39.8	0.0	28.3	39.5	0.0	53.0
LnGrp LOS	D	F	A	D		F	D		C	D		D
Approach Vol, veh/h		2578			1188			131			192	
Approach Delay, s/veh		673.4			163.3			35.0			51.3	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	43.7	9.1	14.3	12.4	40.0	6.9	16.5
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	4.2	40.4	5.2	9.6	7.5	36.7	3.0	4.2
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	475.5
HCM 7th LOS	F

Intersection	
Int Delay, s/veh	23318.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	112	1577	555	87	807	11	162	14	23	22	58	115
Future Vol, veh/h	112	1577	555	87	807	11	162	14	23	22	58	115
Conflicting Peds, #/hr	0	0	3	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	123	1733	610	96	887	12	178	15	25	24	64	126

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	899	0	0	2346	0	0	3397	3377	2041	3071	3676	893
Stage 1	-	-	-	-	-	-	2287	2287	-	1084	1084	-
Stage 2	-	-	-	-	-	-	1110	1090	-	1987	2592	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	764	-	-	213	-	-	~ 4	~ 8	72	~ 8	~ 5	343
Stage 1	-	-	-	-	-	-	~ 53	75	-	265	296	-
Stage 2	-	-	-	-	-	-	256	294	-	80	~ 52	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	764	-	-	212	-	-	~ 0	~ 1	72	~ 0	~ 0	343
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 0	~ 1	-	~ 0	~ 0	-
Stage 1	-	-	-	-	-	-	~ 53	75	-	26	~ 29	-
Stage 2	-	-	-	-	-	-	-	29	-	41	~ 52	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.53	3.38	$ 328805.52	$ 88107.33
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	~ 85	-	-	106	-	-	1
HCM Lane V/C Ratio	682.548	0.161	-	-	0.45	-	-	183.301
HCM Control Delay (s/veh)	$ 328805.5	10.6	0	-	35.1	0	-	$ 88107.3
HCM Lane LOS	F	B	A	-	E	A	-	F
HCM 95th %tile Q(veh)	30	0.6	-	-	2.1	-	-	29.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	0	2	182	656	18
Future Vol, veh/h	7	0	2	182	656	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	0	2	198	713	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	925	723	733	0	-	0
Stage 1	723	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	301	430	881	-	-	-
Stage 1	484	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	300	430	881	-	-	-
Mov Cap-2 Maneuver	399	-	-	-	-	-
Stage 1	483	-	-	-	-	-
Stage 2	837	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	14.2	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	881	-	399	-	-
HCM Lane V/C Ratio	0.002	-	0.019	-	-
HCM Control Delay (s/veh)	9.1	-	14.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	0	4	162	610	46
Future Vol, veh/h	22	0	4	162	610	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	24	0	4	176	663	50

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	873	688	713	0	-	0
Stage 1	688	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	323	450	896	-	-	-
Stage 1	503	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	322	450	896	-	-	-
Mov Cap-2 Maneuver	416	-	-	-	-	-
Stage 1	500	-	-	-	-	-
Stage 2	852	-	-	-	-	-

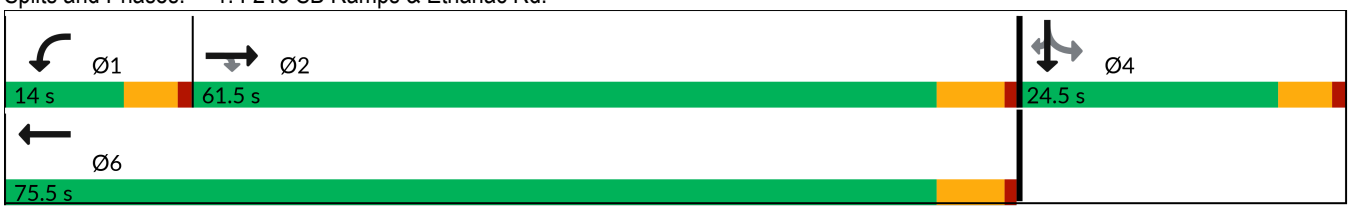
Approach	EB	NB	SB
HCM Control Delay, s/v	14.19	0.22	0
HCM LOS	B		

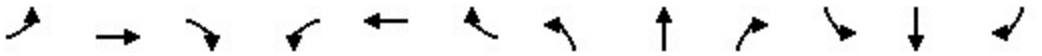
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	896	-	416	-	-
HCM Lane V/C Ratio	0.005	-	0.058	-	-
HCM Control Delay (s/veh)	9	-	14.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1735	1025	404	1758	0	971
Future Volume (vph)	1735	1025	404	1758	0	971
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	10.0	24.5	24.5	24.5
Total Split (s)	61.5	61.5	14.0	75.5	24.5	24.5
Total Split (%)	61.5%	61.5%	14.0%	75.5%	24.5%	24.5%
Yellow Time (s)	5.0	5.0	4.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	55.5	55.5	9.0	69.5	19.5	19.5
Actuated g/C Ratio	0.56	0.56	0.09	0.70	0.20	0.20
v/c Ratio	1.67	0.92	2.54	0.71	2.13	2.58
Control Delay (s/veh)	332.1	25.0	733.6	11.3	543.5	737.8
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay (s/veh)	332.1	25.0	733.6	11.7	543.5	737.8
LOS	F	C	F	B	F	F
Approach Delay (s/veh)	218.1			146.6	654.2	
Approach LOS	F			F	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.58	
Intersection Signal Delay (s/veh): 307.0	Intersection LOS: F
Intersection Capacity Utilization 306.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1735	1025	404	1758	0	0	0	0	734	0	971
Future Volume (veh/h)	0	1735	1025	404	1758	0	0	0	0	734	0	971
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1770	895	412	1794	0				749	0	828
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1055	894	163	2509	0				353	0	314
Arrive On Green	0.00	0.56	0.56	0.09	0.69	0.00				0.19	0.00	0.19
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1810	0	1610
Grp Volume(v), veh/h	0	1770	895	412	1794	0				749	0	828
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	55.5	55.5	9.0	30.1	0.0				19.5	0.0	19.5
Cycle Q Clear(g_c), s	0.0	55.5	55.5	9.0	30.1	0.0				19.5	0.0	19.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1055	894	163	2509	0				353	0	314
V/C Ratio(X)	0.00	1.68	1.00	2.53	0.72	0.00				2.12	0.00	2.64
Avail Cap(c_a), veh/h	0	1055	894	163	2509	0				353	0	314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.3	22.3	45.5	9.2	0.0				40.3	0.0	40.2
Incr Delay (d2), s/veh	0.0	309.5	30.5	706.2	1.0	0.0				514.7	0.0	745.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	112.0	25.7	35.9	9.5	0.0				58.5	0.0	72.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	331.8	52.7	751.7	10.2	0.0				554.9	0.0	786.1
LnGrp LOS		F	F	F	B					F		F
Approach Vol, veh/h		2665			2206						1577	
Approach Delay, s/veh		238.0			148.7						676.3	
Approach LOS		F			F						F	

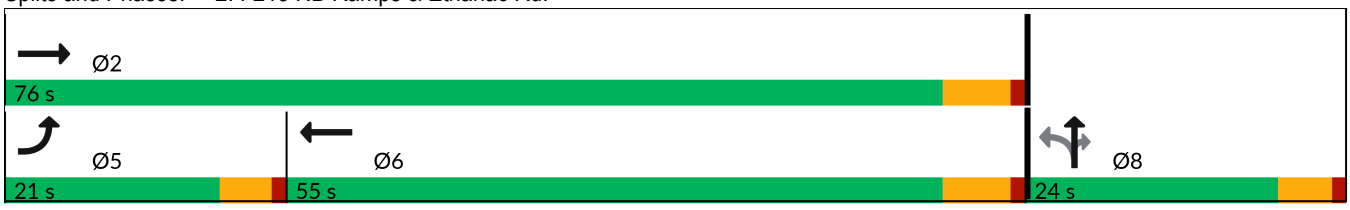
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.0	61.5		24.5		75.5
Change Period (Y+Rc), s	5.0	6.0		5.0		6.0
Max Green Setting (Gmax), s	9.0	55.5		19.5		69.5
Max Q Clear Time (g_c+I1), s	11.0	57.5		21.5		32.1
Green Ext Time (p_c), s	0.0	0.0		0.0		19.6

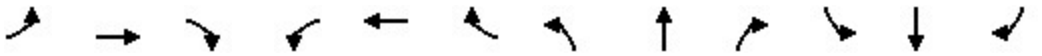
Intersection Summary		
HCM 7th Control Delay, s/veh		314.7
HCM 7th LOS		F

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	932	1538	1123	0	493
Future Volume (vph)	932	1538	1123	0	493
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.5	23.4	23.4	23.4
Total Split (s)	21.0	76.0	55.0	24.0	24.0
Total Split (%)	21.0%	76.0%	55.0%	24.0%	24.0%
Yellow Time (s)	4.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	16.0	70.0	49.0	19.0	19.0
Actuated g/C Ratio	0.16	0.70	0.49	0.19	0.19
v/c Ratio	3.30	1.18	2.04	3.10	1.33
Control Delay (s/veh)	Error	107.6	494.1	969.8	196.4
Queue Delay	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	Error	107.7	494.1	969.8	196.4
LOS	F	F	F	F	F
Approach Delay (s/veh)		467.6	494.1	720.9	
Approach LOS		F	F	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.30	
Intersection Signal Delay (s/veh): 542.6	Intersection LOS: F
Intersection Capacity Utilization 306.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	932	1538	0	0	1123	689	1039	0	493	0	0	0
Future Volume (veh/h)	932	1538	0	0	1123	689	1039	0	493	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	951	1569	0	0	1146	657	1060	0	430			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	290	1330	0	0	555	318	344	0	306			
Arrive On Green	0.16	0.70	0.00	0.00	0.49	0.49	0.19	0.00	0.19			
Sat Flow, veh/h	1810	1900	0	0	1133	650	1810	0	1610			
Grp Volume(v), veh/h	951	1569	0	0	0	1803	1060	0	430			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	0	1783	1810	0	1610			
Q Serve(g_s), s	16.0	70.0	0.0	0.0	0.0	49.0	19.0	0.0	19.0			
Cycle Q Clear(g_c), s	16.0	70.0	0.0	0.0	0.0	49.0	19.0	0.0	19.0			
Prop In Lane	1.00		0.00	0.00		0.36	1.00		1.00			
Lane Grp Cap(c), veh/h	290	1330	0	0	0	874	344	0	306			
V/C Ratio(X)	3.28	1.18	0.00	0.00	0.00	2.06	3.08	0.00	1.41			
Avail Cap(c_a), veh/h	290	1330	0	0	0	874	344	0	306			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	42.0	15.0	0.0	0.0	0.0	25.5	40.5	0.0	40.5			
Incr Delay (d2), s/veh	1037.0	88.9	0.0	0.0	0.0	482.6	945.1	0.0	201.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	90.3	55.0	0.0	0.0	0.0	135.6	98.1	0.0	24.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	1079.0	103.9	0.0	0.0	0.0	508.1	985.6	0.0	241.5			
LnGrp LOS	F	F				F	F		F			
Approach Vol, veh/h		2520			1803			1490				
Approach Delay, s/veh		471.9			508.1			770.8				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.0			21.0	55.0		24.0				
Change Period (Y+Rc), s		6.0			5.0	6.0		5.0				
Max Green Setting (Gmax), s		70.0			16.0	49.0		19.0				
Max Q Clear Time (g_c+I1), s		72.0			18.0	51.0		21.0				
Green Ext Time (p_c), s		0.0			0.0	0.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			559.8									
HCM 7th LOS			F									

Intersection	
Int Delay, s/veh	112.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1867	163	23	1593	218	57
Future Vol, veh/h	1867	163	23	1593	218	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1905	166	23	1626	222	58

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2071	0	3661	1988
Stage 1	-	-	-	-	1988	-
Stage 2	-	-	-	-	1672	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	273	-	~ 6	77
Stage 1	-	-	-	-	~ 118	-
Stage 2	-	-	-	-	~ 169	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	273	-	~ 5	77
Mov Cap-2 Maneuver	-	-	-	-	~ 63	-
Stage 1	-	-	-	-	~ 118	-
Stage 2	-	-	-	-	~ 155	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.28	$ 1596.56
HCM LOS			F

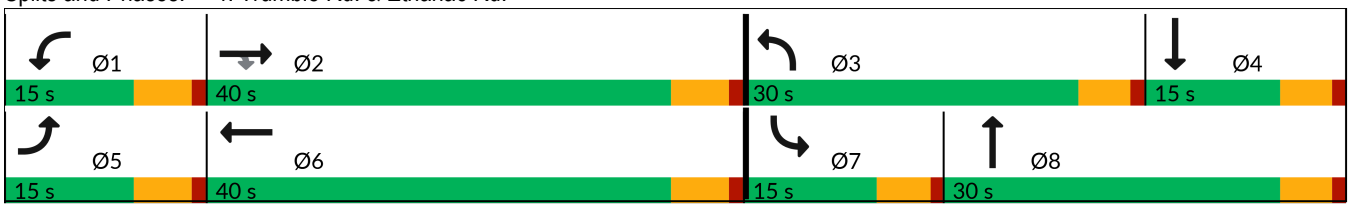
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	66	-	-	273	-
HCM Lane V/C Ratio	4.264	-	-	0.086	-
HCM Control Delay (s/veh)	$ 1596.6	-	-	19.4	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	30.3	-	-	0.3	-

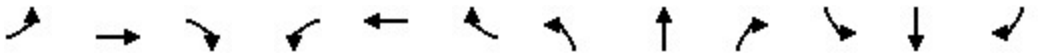
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	81	1972	16	36	2131	80	2	31	7
Future Volume (vph)	81	1972	16	36	2131	80	2	31	7
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	7.9	43.4	43.4	6.7	40.0	8.4	14.2	6.5	8.2
Actuated g/C Ratio	0.11	0.59	0.59	0.09	0.54	0.11	0.19	0.09	0.11
v/c Ratio	0.45	1.88	0.02	0.23	2.22	0.41	0.19	0.21	0.48
Control Delay (s/veh)	44.1	419.1	0.0	41.0	571.6	41.7	9.9	40.9	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	44.1	419.1	0.0	41.0	571.6	41.7	9.9	40.9	13.2
LOS	D	F	A	D	F	D	A	D	B
Approach Delay (s/veh)		401.2			562.9		27.5		18.4
Approach LOS		F			F		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 73.8	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.22	
Intersection Signal Delay (s/veh): 452.8	Intersection LOS: F
Intersection Capacity Utilization 138.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	1972	16	36	2131	18	80	2	63	31	7	129
Future Volume (veh/h)	81	1972	16	36	2131	18	80	2	63	31	7	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	86	2098	17	38	2267	19	85	2	62	33	7	113
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	985	832	67	930	8	111	6	186	61	9	141
Arrive On Green	0.06	0.52	0.52	0.04	0.49	0.49	0.06	0.12	0.12	0.03	0.09	0.09
Sat Flow, veh/h	1810	1900	1604	1810	1881	16	1810	50	1548	1810	95	1530
Grp Volume(v), veh/h	86	2098	17	38	0	2286	85	0	64	33	0	120
Grp Sat Flow(s),veh/h/ln	1810	1900	1604	1810	0	1897	1810	0	1598	1810	0	1625
Q Serve(g_s), s	3.3	36.4	0.4	1.5	0.0	34.7	3.2	0.0	2.6	1.3	0.0	5.1
Cycle Q Clear(g_c), s	3.3	36.4	0.4	1.5	0.0	34.7	3.2	0.0	2.6	1.3	0.0	5.1
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.97	1.00		0.94
Lane Grp Cap(c), veh/h	111	985	832	67	0	937	111	0	192	61	0	150
V/C Ratio(X)	0.77	2.13	0.02	0.56	0.00	2.44	0.76	0.00	0.33	0.54	0.00	0.80
Avail Cap(c_a), veh/h	250	985	832	250	0	937	647	0	571	260	0	234
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	16.9	8.2	33.2	0.0	17.8	32.5	0.0	28.3	33.4	0.0	31.2
Incr Delay (d2), s/veh	4.2	511.9	0.0	2.7	0.0	650.6	4.1	0.0	0.4	2.7	0.0	4.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	152.0	0.1	0.6	0.0	181.1	1.5	0.0	0.9	0.6	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.7	528.8	8.2	36.0	0.0	668.3	36.5	0.0	28.7	36.1	0.0	36.0
LnGrp LOS	D	F	A	D		F	D		C	D		D
Approach Vol, veh/h		2201			2324			149			153	
Approach Delay, s/veh		505.5			658.0			33.2			36.0	
Approach LOS		F			F			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	41.7	9.2	11.4	9.6	40.0	7.3	13.3
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	3.5	38.4	5.2	7.1	5.3	36.7	3.3	4.6
Green Ext Time (p_c), s	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	549.5
HCM 7th LOS	F

Intersection	
Int Delay, s/veh	297889.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	205	1513	358	59	1473	25	575	62	97	20	41	110
Future Vol, veh/h	205	1513	358	59	1473	25	575	62	97	20	41	110
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	220	1627	385	63	1584	27	618	67	104	22	44	118

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1611	0	0	2012	0	0	3993	3998	1819	3825	4177	1597
Stage 1	-	-	-	-	-	-	2260	2260	-	1724	1724	-
Stage 2	-	-	-	-	-	-	1733	1738	-	2101	2453	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	411	-	-	288	-	-	~ 2	~ 3	~ 98	~ 2	~ 2	133
Stage 1	-	-	-	-	-	-	~ 55	78	-	114	145	-
Stage 2	-	-	-	-	-	-	~ 113	143	-	69	62	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	411	-	-	288	-	-	~ 0	0	~ 98	~ 2	0	133
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 0	0	-	~ 2	0	-
Stage 1	-	-	-	-	-	-	~ 55	78	-	114	0	-
Stage 2	-	-	-	-	-	-	~ 12	0	-	-	62	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	2.32	0.8	$ 1840128.09	$ 6805.84
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	~ 171	-	-	~ 29	-	-	12
HCM Lane V/C Ratio	4009.278	0.537	-	-	0.221	-	-	14.809
HCM Control Delay (s/veh)	$ 1840128.1	23.5	0	-	21	0	-	$ 6805.8
HCM Lane LOS	F	C	A	-	C	A	-	F
HCM 95th %tile Q(veh)	101.5	3.1	-	-	0.8	-	-	24.3

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	2	0	685	430	10
Future Vol, veh/h	19	2	0	685	430	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	2	0	745	467	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1217	473	478	0	-	0
Stage 1	473	-	-	-	-	-
Stage 2	745	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	201	595	1095	-	-	-
Stage 1	631	-	-	-	-	-
Stage 2	473	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	201	595	1095	-	-	-
Mov Cap-2 Maneuver	336	-	-	-	-	-
Stage 1	631	-	-	-	-	-
Stage 2	473	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	15.99	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1095	-	350	-	-
HCM Lane V/C Ratio	-	-	0.065	-	-
HCM Control Delay (s/veh)	0	-	16	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	48	4	1	637	400	32
Future Vol, veh/h	48	4	1	637	400	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	52	4	1	692	435	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1147	452	470	0	-	0
Stage 1	452	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	222	612	1103	-	-	-
Stage 1	645	-	-	-	-	-
Stage 2	499	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	222	612	1103	-	-	-
Mov Cap-2 Maneuver	355	-	-	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	499	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	16.58	0.01	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1103	-	367	-	-
HCM Lane V/C Ratio	0.001	-	0.154	-	-
HCM Control Delay (s/veh)	8.3	-	16.6	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

APPENDIX 6.3: EAC (2026) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	EAC (2026)
				CALC JB	DATE 05/13/24
				CHK JB	DATE 05/13/24

Jurisdiction: **City of Menifee**
Major Street: **Sherman Road** — Critical Approach Speed (Major) 40 mph
Minor Street: **Driveway 2** — Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane — Minor Street Approach Lanes **1** lane

Major Street Future ADT = **5,634** vpd — Minor Street Future ADT = **155** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied (XX)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **5,634** / *1* **155**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied / Not Satisfied (XX)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **5,634** / *1* **155**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied (XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 6% B: 13%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 6.4: EAPC (2026) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		EAPC (2026)
				CALC JB	DATE	05/13/24
Jurisdiction: **City of Menifee**				CHK JB	DATE	05/13/24
Major Street: **Sherman Road**				Critical Approach Speed (Major)		40 mph
Minor Street: **Driveway 1**				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,117** vpd Minor Street Future ADT = **114** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
XX	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied **XX**				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **6,117** / *1* **114**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied **XX**				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **6,117** / *1* **114**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied **XX**	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. **A** 5% **B** 10%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		EAPC (2026)
				CALC JB	DATE	05/13/24
Jurisdiction: **City of Menifee**				CHK JB	DATE	05/13/24
Major Street: **Sherman Road**				Critical Approach Speed (Major)		40 mph
Minor Street: **Driveway 2**				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **5,762** vpd Minor Street Future ADT = **269** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **5,762**	*1* **269**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **5,762**	*1* **269**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 11% **B** 22%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

APPENDIX 6.5: EAC (2026) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1674	1140	224	1622	652	1087
v/c Ratio	1.63	0.99	1.24	0.65	1.80	2.77
Control Delay (s/veh)	311.5	39.1	187.0	10.2	400.6	822.8
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	311.5	39.1	187.0	10.5	400.6	822.8
Queue Length 50th (ft)	~1549	442	~178	269	~629	~1159
Queue Length 95th (ft)	#1810	#825	#327	335	#845	#1409
Internal Link Dist (ft)	624			681	1327	
Turn Bay Length (ft)			275			240
Base Capacity (vph)	1026	1141	180	2490	361	392
Starvation Cap Reductn	0	0	0	285	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.63	1.00	1.24	0.74	1.81	2.77

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	858	1493	1415	949	474
v/c Ratio	2.64	1.12	1.62	2.75	1.25
Control Delay (s/veh)	770.4	83.6	311.7	818.7	165.4
Queue Delay	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	770.4	83.7	311.7	818.7	165.4
Queue Length 50th (ft)	~928	~1105	~1309	~1037	~334
Queue Length 95th (ft)	#1160	#1363	#1570	#1275	#533
Internal Link Dist (ft)		681	457	1327	
Turn Bay Length (ft)	245				270
Base Capacity (vph)	324	1330	869	344	377
Starvation Cap Reductn	0	58	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.65	1.17	1.63	2.76	1.26

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1769	1046	400	1791	739	991
v/c Ratio	1.67	0.92	2.46	0.71	2.10	2.58
Control Delay (s/veh)	331.7	25.0	701.1	11.2	531.0	737.8
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay (s/veh)	331.7	25.0	701.1	11.6	531.0	737.8
Queue Length 50th (ft)	~1657	333	~425	318	~751	~1033
Queue Length 95th (ft)	#1919	#726	#608	396	#974	#1280
Internal Link Dist (ft)	624			681	1327	
Turn Bay Length (ft)			275			240
Base Capacity (vph)	1054	1130	162	2508	351	384
Starvation Cap Reductn	0	0	0	267	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.68	0.93	2.47	0.80	2.11	2.58

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	951	1558	1817	1060	496
v/c Ratio	3.30	1.17	2.00	3.09	1.31
Control Delay (s/veh)	Error	104.0	478.4	969.7	188.8
Queue Delay	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	Error	104.1	478.4	969.7	188.8
Queue Length 50th (ft)	~1076	~1191	~1830	~1185	~364
Queue Length 95th (ft)	#1315	#1451	#2098	#1429	#566
Internal Link Dist (ft)		681	457	1327	
Turn Bay Length (ft)	245				270
Base Capacity (vph)	288	1330	905	342	377
Starvation Cap Reductn	0	45	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	3.30	1.21	2.01	3.10	1.32

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 6.6: EAPC (2026) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1677	1140	228	1623	669	1087
v/c Ratio	1.63	0.99	1.26	0.65	1.85	2.77
Control Delay (s/veh)	312.8	39.2	194.9	10.2	421.0	822.8
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	312.8	39.2	194.9	10.5	421.0	822.8
Queue Length 50th (ft)	~1553	443	~184	269	~652	~1159
Queue Length 95th (ft)	#1814	#826	#332	335	#869	#1409
Internal Link Dist (ft)	624			681	1327	
Turn Bay Length (ft)			275			240
Base Capacity (vph)	1026	1141	180	2490	361	392
Starvation Cap Reductn	0	0	0	284	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.63	1.00	1.27	0.74	1.85	2.77

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	858	1514	1427	949	486
v/c Ratio	2.64	1.13	1.64	2.75	1.28
Control Delay (s/veh)	770.4	90.1	317.8	818.7	178.1
Queue Delay	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	770.4	90.2	317.8	818.7	178.1
Queue Length 50th (ft)	~928	~1133	~1325	~1037	~351
Queue Length 95th (ft)	#1160	#1391	#1588	#1275	#552
Internal Link Dist (ft)		681	457	1327	
Turn Bay Length (ft)	245				270
Base Capacity (vph)	324	1330	869	344	377
Starvation Cap Reductn	0	54	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.65	1.19	1.64	2.76	1.29

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1770	1046	412	1794	749	991
v/c Ratio	1.67	0.92	2.54	0.71	2.13	2.58
Control Delay (s/veh)	332.1	25.0	733.6	11.3	543.5	737.8
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay (s/veh)	332.1	25.0	733.6	11.7	543.5	737.8
Queue Length 50th (ft)	~1658	333	~441	319	~764	~1033
Queue Length 95th (ft)	#1921	#726	#627	398	#989	#1280
Internal Link Dist (ft)	624			681	1327	
Turn Bay Length (ft)			275			240
Base Capacity (vph)	1054	1130	162	2508	351	384
Starvation Cap Reductn	0	0	0	267	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.68	0.93	2.54	0.80	2.13	2.58

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	951	1569	1849	1060	503
v/c Ratio	3.30	1.17	2.04	3.09	1.33
Control Delay (s/veh)	Error	107.5	494.0	969.7	196.4
Queue Delay	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	Error	107.7	494.0	969.7	196.4
Queue Length 50th (ft)	~1076	~1206	~1873	~1185	~374
Queue Length 95th (ft)	#1315	#1466	#2142	#1429	#577
Internal Link Dist (ft)		681	457	1327	
Turn Bay Length (ft)	245				270
Base Capacity (vph)	288	1330	905	342	377
Starvation Cap Reductn	0	43	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	3.30	1.22	2.04	3.10	1.33

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 6.7: EAPC (2026) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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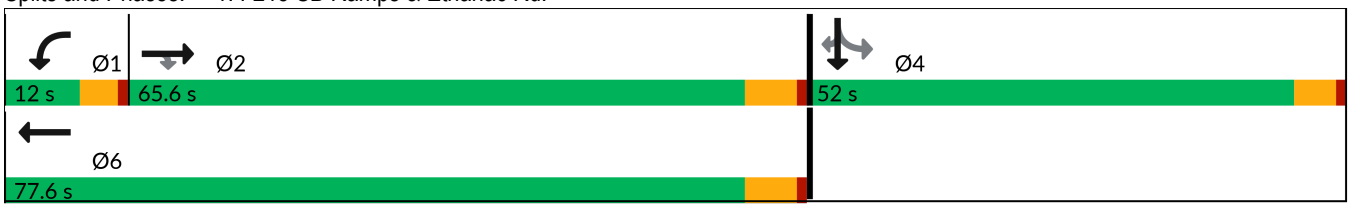
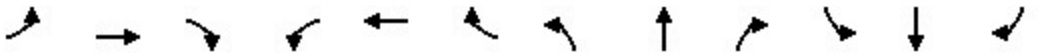
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1560	1060	212	1509	622	0	1011
Future Volume (vph)	1560	1060	212	1509	622	0	1011
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	9.6	24.5	24.5	24.5	24.5
Total Split (s)	65.6	65.6	12.0	77.6	52.0	52.0	52.0
Total Split (%)	50.6%	50.6%	9.3%	59.9%	40.1%	40.1%	40.1%
Yellow Time (s)	5.0	5.0	3.6	5.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.6	6.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	None	None
Act Effct Green (s)	59.6	59.6	7.4	71.6	47.0	47.0	47.0
Actuated g/C Ratio	0.46	0.46	0.06	0.55	0.36	0.36	0.36
v/c Ratio	1.05	1.01	1.10	0.84	0.94	0.91	1.11
Control Delay (s/veh)	72.9	45.6	149.0	29.9	65.5	55.0	110.9
Queue Delay	0.0	0.0	0.0	3.6	0.0	0.0	0.0
Total Delay (s/veh)	72.9	45.6	149.0	33.5	65.5	55.0	110.9
LOS	E	D	F	C	E	E	F
Approach Delay (s/veh)	61.9			47.8		77.0	
Approach LOS	E			D		E	

Intersection Summary	
Cycle Length: 129.6	
Actuated Cycle Length: 129.6	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay (s/veh): 62.0	Intersection LOS: E
Intersection Capacity Utilization 112.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1560	1060	212	1509	0	0	0	0	622	0	1011
Future Volume (veh/h)	0	1560	1060	212	1509	0	0	0	0	622	0	1011
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1677	710	228	1623	0				873	0	438
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1720	801	224	2067	0				1124	0	500
Arrive On Green	0.00	0.50	0.50	0.06	0.60	0.00				0.31	0.00	0.31
Sat Flow, veh/h	0	3629	1610	3619	3629	0				3619	0	1610
Grp Volume(v), veh/h	0	1677	710	228	1623	0				873	0	438
Grp Sat Flow(s),veh/h/ln	0	1729	1610	1810	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	56.6	47.5	7.4	42.6	0.0				26.2	0.0	30.8
Cycle Q Clear(g_c), s	0.0	56.6	47.5	7.4	42.6	0.0				26.2	0.0	30.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1720	801	224	2067	0				1124	0	500
V/C Ratio(X)	0.00	0.98	0.89	1.02	0.79	0.00				0.78	0.00	0.88
Avail Cap(c_a), veh/h	0	1722	802	224	2068	0				1421	0	632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.4	27.0	56.1	18.3	0.0				37.5	0.0	39.1
Incr Delay (d2), s/veh	0.0	16.1	11.7	65.2	2.1	0.0				2.2	0.0	11.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	25.6	19.6	5.3	16.0	0.0				11.2	0.0	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	45.5	38.8	121.3	20.3	0.0				39.7	0.0	50.1
LnGrp LOS		D	D	F	C					D		D
Approach Vol, veh/h		2387			1851						1311	
Approach Delay, s/veh		43.5			32.8						43.2	
Approach LOS		D			C						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	12.0	65.5		42.2		77.5
Change Period (Y+Rc), s	4.6	6.0		5.0		6.0
Max Green Setting (Gmax), s	7.4	59.6		47.0		71.6
Max Q Clear Time (g_c+I1), s	9.4	58.6		32.8		44.6
Green Ext Time (p_c), s	0.0	0.9		4.3		14.3

Intersection Summary	
HCM 7th Control Delay, s/veh	39.8
HCM 7th LOS	D

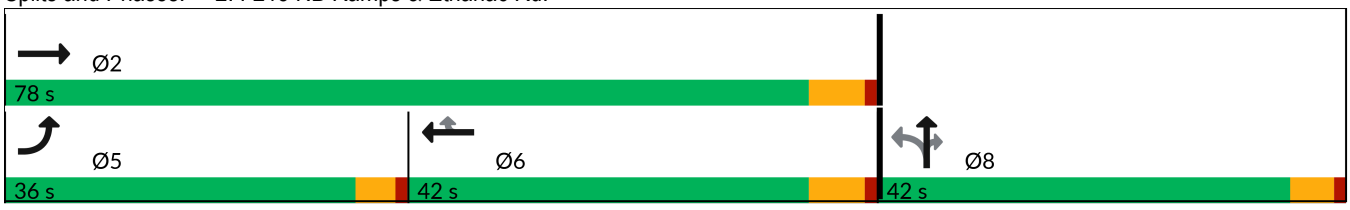
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	789	1393	849	464	870	3	447
Future Volume (vph)	789	1393	849	464	870	3	447
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	6			8	
Permitted Phases				6	8		8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	24.5	23.4	23.4	23.4	23.4	23.4
Total Split (s)	36.0	78.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	30.0%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.6	5.0	5.0	5.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	None	None	None
Act Effct Green (s)	29.7	68.8	34.4	34.4	34.5	34.5	34.5
Actuated g/C Ratio	0.26	0.60	0.30	0.30	0.30	0.30	0.30
v/c Ratio	0.90	0.71	0.87	0.61	0.88	0.85	0.89
Control Delay (s/veh)	54.8	18.6	48.6	7.3	57.5	54.3	53.2
Queue Delay	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	54.8	19.0	48.6	7.3	57.5	54.3	53.2
LOS	D	B	D	A	E	D	D
Approach Delay (s/veh)		31.9	34.0			55.0	
Approach LOS		C	C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay (s/veh): 38.8	Intersection LOS: D
Intersection Capacity Utilization 112.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	789	1393	0	0	849	464	870	3	447	0	0	0
Future Volume (veh/h)	789	1393	0	0	849	464	870	3	447	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	839	1482	0	0	903	494	928	0	412			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	921	2119	0	0	1099	512	1050	0	467			
Arrive On Green	0.25	0.61	0.00	0.00	0.32	0.32	0.29	0.00	0.29			
Sat Flow, veh/h	3619	3629	0	0	3629	1610	3619	0	1610			
Grp Volume(v), veh/h	839	1482	0	0	903	494	928	0	412			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	25.5	32.9	0.0	0.0	27.3	34.2	27.7	0.0	27.7			
Cycle Q Clear(g_c), s	25.5	32.9	0.0	0.0	27.3	34.2	27.7	0.0	27.7			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	921	2119	0	0	1099	512	1050	0	467			
V/C Ratio(X)	0.91	0.70	0.00	0.00	0.82	0.97	0.88	0.00	0.88			
Avail Cap(c_a), veh/h	1003	2198	0	0	1099	512	1182	0	526			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.0	14.9	0.0	0.0	35.7	38.0	38.4	0.0	38.4			
Incr Delay (d2), s/veh	11.6	1.0	0.0	0.0	5.1	31.0	7.6	0.0	14.9			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	12.5	11.8	0.0	0.0	11.9	17.3	12.5	0.0	12.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.5	15.8	0.0	0.0	40.8	69.0	46.0	0.0	53.3			
LnGrp LOS	D	B			D	E	D		D			
Approach Vol, veh/h		2321			1397			1340				
Approach Delay, s/veh		29.1			50.8			48.2				
Approach LOS		C			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.4			33.4	42.0		37.9				
Change Period (Y+Rc), s		6.0			4.6	6.0		5.0				
Max Green Setting (Gmax), s		72.0			31.4	36.0		37.0				
Max Q Clear Time (g_c+I1), s		34.9			27.5	36.2		29.7				
Green Ext Time (p_c), s		14.5			1.3	0.0		3.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	40.1
HCM 7th LOS	D

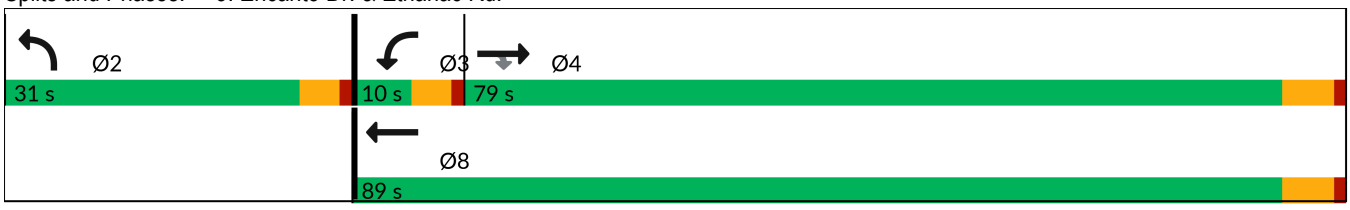
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations					
Traffic Volume (vph)	1748	92	37	1097	216
Future Volume (vph)	1748	92	37	1097	216
Turn Type	NA	Perm	Prot	NA	Prot
Protected Phases	4		3	8	2
Permitted Phases		4			
Detector Phase	4	4	3	8	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	27.8	27.8	9.6	27.8	26.6
Total Split (s)	79.0	79.0	10.0	89.0	31.0
Total Split (%)	65.8%	65.8%	8.3%	74.2%	25.8%
Yellow Time (s)	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	63.6	63.6	5.7	68.7	19.7
Actuated g/C Ratio	0.64	0.64	0.06	0.69	0.20
v/c Ratio	0.82	0.09	0.38	0.47	0.74
Control Delay (s/veh)	19.0	3.9	65.0	7.9	53.8
Queue Delay	1.2	0.0	0.0	0.3	0.0
Total Delay (s/veh)	20.3	3.9	65.0	8.2	53.8
LOS	C	A	E	A	D
Approach Delay (s/veh)	19.5			10.1	53.8
Approach LOS	B			B	D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 18.9	Intersection LOS: B
Intersection Capacity Utilization 70.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Encanto Dr. & Ethanac Rd.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1748	92	37	1097	216	30
Future Volume (veh/h)	1748	92	37	1097	216	30
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1900	46	40	1192	235	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2324	1036	63	2630	271	13
Arrive On Green	0.64	0.64	0.03	0.73	0.16	0.16
Sat Flow, veh/h	3705	1610	1810	3705	1712	80
Grp Volume(v), veh/h	1900	46	40	1192	247	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1800	0
Q Serve(g_s), s	36.3	1.0	2.0	12.3	12.3	0.0
Cycle Q Clear(g_c), s	36.3	1.0	2.0	12.3	12.3	0.0
Prop In Lane		1.00	1.00		0.95	0.04
Lane Grp Cap(c), veh/h	2324	1036	63	2630	285	0
V/C Ratio(X)	0.82	0.04	0.63	0.45	0.87	0.00
Avail Cap(c_a), veh/h	2879	1284	106	3272	518	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.3	6.0	43.7	5.0	37.7	0.0
Incr Delay (d2), s/veh	1.6	0.0	3.9	0.1	3.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	0.3	0.9	3.3	5.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	13.9	6.0	47.6	5.2	40.9	0.0
LnGrp LOS	B	A	D	A	D	
Approach Vol, veh/h	1946			1232	247	
Approach Delay, s/veh	13.7			6.5	40.9	
Approach LOS	B			A	D	

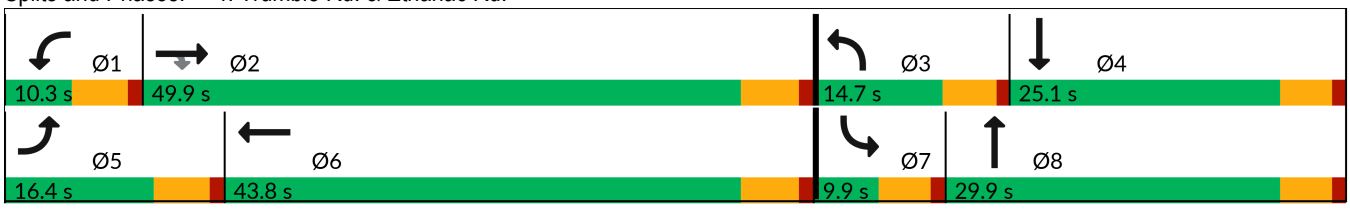
Timer - Assigned Phs	2	3	4		8
Phs Duration (G+Y+Rc), s	19.1	7.8	64.9		72.7
Change Period (Y+Rc), s	4.6	4.6	5.8		5.8
Max Green Setting (Gmax), s	26.4	5.4	73.2		83.2
Max Q Clear Time (g_c+I1), s	14.3	4.0	38.3		14.3
Green Ext Time (p_c), s	0.2	0.0	20.7		11.3

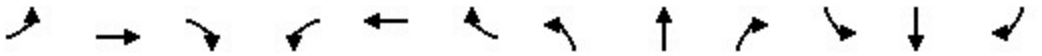
Intersection Summary	
HCM 7th Control Delay, s/veh	13.1
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	123	2217	6	49	999	70	8	22	11
Future Volume (vph)	123	2217	6	49	999	70	8	22	11
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	16.4	49.9	49.9	10.3	43.8	14.7	29.9	9.9	25.1
Total Split (%)	16.4%	49.9%	49.9%	10.3%	43.8%	14.7%	29.9%	9.9%	25.1%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	9.6	45.9	45.9	5.1	38.6	7.7	14.6	5.1	8.2
Actuated g/C Ratio	0.12	0.56	0.56	0.06	0.47	0.09	0.18	0.06	0.10
v/c Ratio	0.64	1.16	0.01	0.48	0.67	0.46	0.17	0.21	0.57
Control Delay (s/veh)	52.5	101.1	0.0	57.4	21.6	48.0	12.9	46.5	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.5	101.1	0.0	57.4	21.6	48.0	12.9	46.5	15.1
LOS	D	F	A	E	C	D	B	D	B
Approach Delay (s/veh)		98.2			23.2		33.2		18.9
Approach LOS		F			C		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 82.3	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay (s/veh): 70.5	Intersection LOS: E
Intersection Capacity Utilization 96.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	2217	6	49	999	33	70	8	43	22	11	148
Future Volume (veh/h)	123	2217	6	49	999	33	70	8	43	22	11	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	135	2436	4	54	1098	20	77	9	25	24	12	86
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	170	2128	911	80	1870	34	100	47	131	47	15	110
Arrive On Green	0.09	0.85	0.57	0.04	0.77	0.52	0.06	0.11	0.11	0.03	0.08	0.08
Sat Flow, veh/h	1810	3762	1610	1810	3627	66	1810	444	1234	1810	201	1440
Grp Volume(v), veh/h	135	2436	4	54	546	572	77	0	34	24	0	98
Grp Sat Flow(s),veh/h/ln	1810	1881	1610	1810	1805	1888	1810	0	1678	1810	0	1641
Q Serve(g_s), s	5.8	44.6	0.1	2.3	9.9	10.2	3.3	0.0	1.5	1.0	0.0	4.6
Cycle Q Clear(g_c), s	5.8	44.6	0.1	2.3	9.9	10.2	3.3	0.0	1.5	1.0	0.0	4.6
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.74	1.00		0.88
Lane Grp Cap(c), veh/h	170	2128	911	80	931	974	100	0	178	47	0	126
V/C Ratio(X)	0.79	1.14	0.00	0.68	0.59	0.59	0.77	0.00	0.19	0.51	0.00	0.78
Avail Cap(c_a), veh/h	255	2128	911	115	931	974	225	0	532	115	0	420
HCM Platoon Ratio	1.00	1.50	1.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	6.0	7.5	37.1	5.4	5.7	36.8	0.0	32.2	37.9	0.0	35.8
Incr Delay (d2), s/veh	5.3	71.4	0.0	3.7	0.7	0.6	4.7	0.0	0.2	3.2	0.0	3.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	23.8	0.0	1.0	2.3	2.5	1.5	0.0	0.6	0.5	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.3	77.3	7.5	40.9	6.1	6.3	41.4	0.0	32.4	41.1	0.0	39.6
LnGrp LOS	D	F	A	D	A	A	D		C	D		D
Approach Vol, veh/h		2575			1172			111			122	
Approach Delay, s/veh		75.3			7.8			38.7			39.9	
Approach LOS		E			A			D			D	

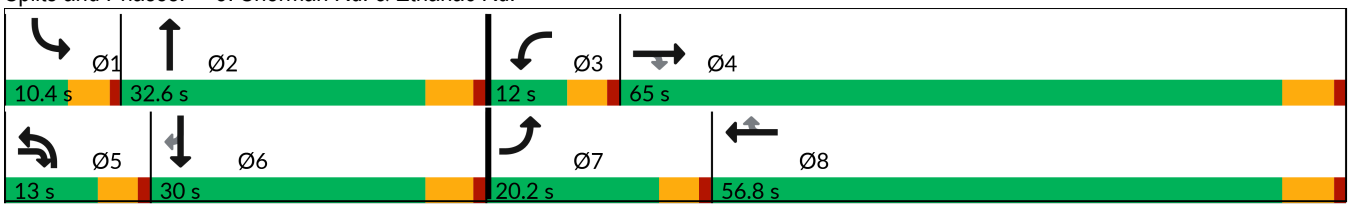
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	49.9	9.2	10.9	12.7	46.0	6.9	13.3
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	5.0	44.6	9.8	20.2	11.1	38.5	5.0	25.0
Max Q Clear Time (g_c+I1), s	4.3	46.6	5.3	6.6	7.8	12.2	3.0	3.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.0	4.3	0.0	0.1

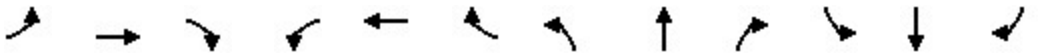
Intersection Summary	
HCM 7th Control Delay, s/veh	53.3
HCM 7th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	112	1577	555	87	807	11	162	14	22	58	115
Future Volume (vph)	112	1577	555	87	807	11	162	14	22	58	115
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	28.2	9.6	9.6	28.2	28.2	9.6	27.4	9.6	27.4	27.4
Total Split (s)	20.2	65.0	13.0	12.0	56.8	56.8	13.0	32.6	10.4	30.0	30.0
Total Split (%)	16.8%	54.2%	10.8%	10.0%	47.3%	47.3%	10.8%	27.2%	8.7%	25.0%	25.0%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	4.8	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	5.8	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	11.2	57.8	67.2	7.4	54.0	54.0	8.1	15.8	5.5	12.2	12.2
Actuated g/C Ratio	0.11	0.54	0.63	0.07	0.51	0.51	0.08	0.15	0.05	0.11	0.11
v/c Ratio	0.64	0.88	0.49	0.76	0.48	0.01	0.66	0.14	0.25	0.29	0.39
Control Delay (s/veh)	61.9	28.2	2.2	85.7	19.1	0.0	61.3	21.5	57.6	46.8	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.9	28.2	2.2	85.7	19.1	0.0	61.3	21.5	57.6	46.8	7.8
LOS	E	C	A	F	B	A	E	C	E	D	A
Approach Delay (s/veh)		23.5			25.3			54.0		25.1	
Approach LOS		C			C			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 106.1	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay (s/veh): 25.8	Intersection LOS: C
Intersection Capacity Utilization 72.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 5: Sherman Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	1577	555	87	807	11	162	14	23	22	58	115
Future Volume (veh/h)	112	1577	555	87	807	11	162	14	23	22	58	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	123	1733	445	96	887	1	178	15	14	24	64	71
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	153	2007	989	122	1944	867	246	131	122	44	188	160
Arrive On Green	0.08	0.56	0.56	0.07	0.54	0.54	0.07	0.14	0.14	0.02	0.10	0.10
Sat Flow, veh/h	1810	3610	1577	1810	3610	1610	3510	904	844	1810	1900	1610
Grp Volume(v), veh/h	123	1733	445	96	887	1	178	0	29	24	64	71
Grp Sat Flow(s),veh/h/ln	1810	1805	1577	1810	1805	1610	1755	0	1748	1810	1900	1610
Q Serve(g_s), s	6.6	40.3	14.5	5.1	14.8	0.0	4.9	0.0	1.4	1.3	3.1	4.1
Cycle Q Clear(g_c), s	6.6	40.3	14.5	5.1	14.8	0.0	4.9	0.0	1.4	1.3	3.1	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	153	2007	989	122	1944	867	246	0	253	44	188	160
V/C Ratio(X)	0.80	0.86	0.45	0.79	0.46	0.00	0.72	0.00	0.11	0.54	0.34	0.44
Avail Cap(c_a), veh/h	287	2174	1062	136	1944	867	300	0	484	107	476	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	18.6	9.6	45.1	13.9	10.5	44.8	0.0	36.6	47.4	41.3	41.7
Incr Delay (d2), s/veh	3.7	3.6	0.3	20.6	0.2	0.0	4.7	0.0	0.2	3.8	1.1	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	15.3	4.2	2.9	5.4	0.0	2.2	0.0	0.6	0.6	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.8	22.3	9.9	65.7	14.0	10.5	49.5	0.0	36.8	51.2	42.3	43.7
LnGrp LOS	D	C	A	E	B	B	D		D	D	D	D
Approach Vol, veh/h		2301			984			207			159	
Approach Delay, s/veh		21.3			19.1			47.7			44.3	
Approach LOS		C			B			D			D	

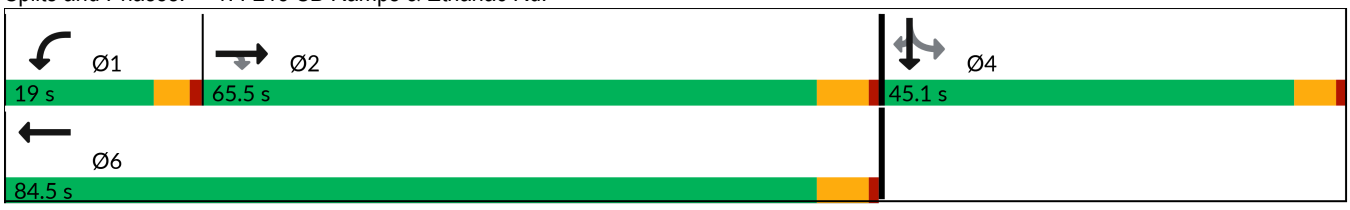
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	19.6	11.2	60.4	11.5	15.1	12.9	58.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.8	27.2	7.4	59.2	8.4	24.6	15.6	51.0
Max Q Clear Time (g_c+I1), s	3.3	3.4	7.1	42.3	6.9	6.1	8.6	16.8
Green Ext Time (p_c), s	0.0	0.1	0.0	12.4	0.0	0.4	0.1	6.5

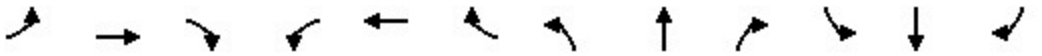
Intersection Summary	
HCM 7th Control Delay, s/veh	23.2
HCM 7th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1735	1025	404	1758	734	0	971
Future Volume (vph)	1735	1025	404	1758	734	0	971
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	9.6	24.5	24.5	24.5	24.5
Total Split (s)	65.5	65.5	19.0	84.5	45.1	45.1	45.1
Total Split (%)	50.5%	50.5%	14.7%	65.2%	34.8%	34.8%	34.8%
Yellow Time (s)	5.0	5.0	3.6	5.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.6	6.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	None	None
Act Effct Green (s)	59.5	59.5	14.4	78.5	40.1	40.1	40.1
Actuated g/C Ratio	0.46	0.46	0.11	0.61	0.31	0.31	0.31
v/c Ratio	1.06	0.96	1.03	0.78	1.08	1.03	1.05
Control Delay (s/veh)	77.1	33.9	110.6	22.4	105.7	87.8	91.1
Queue Delay	0.0	0.0	0.0	3.5	0.0	0.0	0.0
Total Delay (s/veh)	77.1	33.9	110.6	26.0	105.7	87.8	91.1
LOS	E	C	F	C	F	F	F
Approach Delay (s/veh)	61.1			41.9		95.1	
Approach LOS	E			D		F	

Intersection Summary	
Cycle Length: 129.6	
Actuated Cycle Length: 129.6	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay (s/veh): 63.6	Intersection LOS: E
Intersection Capacity Utilization 118.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1735	1025	404	1758	0	0	0	0	734	0	971
Future Volume (veh/h)	0	1735	1025	404	1758	0	0	0	0	734	0	971
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1770	638	412	1794	0				962	0	457
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1672	746	402	2299	0				1098	0	488
Arrive On Green	0.00	0.69	0.46	0.11	0.92	0.00				0.30	0.00	0.30
Sat Flow, veh/h	0	3705	1610	3583	3781	0				3619	0	1610
Grp Volume(v), veh/h	0	1770	638	412	1794	0				962	0	457
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1791	1881	0				1810	0	1610
Q Serve(g_s), s	0.0	59.5	45.3	14.4	18.0	0.0				32.4	0.0	35.5
Cycle Q Clear(g_c), s	0.0	59.5	45.3	14.4	18.0	0.0				32.4	0.0	35.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1672	746	402	2299	0				1098	0	488
V/C Ratio(X)	0.00	1.06	0.86	1.03	0.78	0.00				0.88	0.00	0.94
Avail Cap(c_a), veh/h	0	1672	746	402	2299	0				1130	0	503
HCM Platoon Ratio	1.00	1.50	1.00	1.00	1.50	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.6	30.7	57.0	2.8	0.0				42.5	0.0	43.5
Incr Delay (d2), s/veh	0.0	39.4	9.6	51.7	1.8	0.0				7.8	0.0	24.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	25.3	18.7	9.3	2.8	0.0				14.9	0.0	16.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	59.0	40.3	108.7	4.6	0.0				50.3	0.0	68.3
LnGrp LOS		F	D	F	A					D		E
Approach Vol, veh/h		2408			2206						1419	
Approach Delay, s/veh		54.1			24.1						56.1	
Approach LOS		D			C						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.0	65.5		44.0		84.5
Change Period (Y+Rc), s	4.6	6.0		5.0		6.0
Max Green Setting (Gmax), s	14.4	59.5		40.1		78.5
Max Q Clear Time (g_c+I1), s	16.4	61.5		37.5		20.0
Green Ext Time (p_c), s	0.0	0.0		1.5		23.7

Intersection Summary	
HCM 7th Control Delay, s/veh	43.6
HCM 7th LOS	D

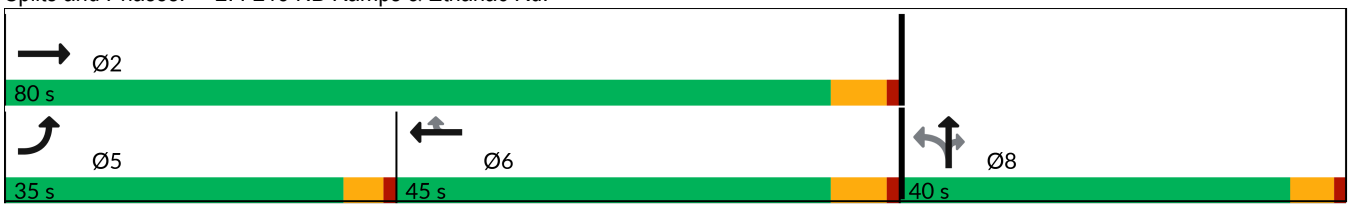
Notes

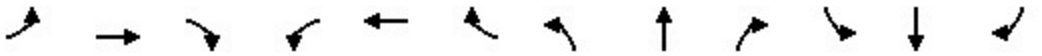
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	932	1538	1123	689	1039	0	493
Future Volume (vph)	932	1538	1123	689	1039	0	493
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	6			8	
Permitted Phases				6	8		8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	24.5	23.4	23.4	23.4	23.4	23.4
Total Split (s)	35.0	80.0	45.0	45.0	40.0	40.0	40.0
Total Split (%)	29.2%	66.7%	37.5%	37.5%	33.3%	33.3%	33.3%
Yellow Time (s)	3.6	5.0	5.0	5.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	None	None	None
Act Effct Green (s)	30.4	74.0	39.0	39.0	35.0	35.0	35.0
Actuated g/C Ratio	0.25	0.62	0.33	0.33	0.29	0.29	0.29
v/c Ratio	1.04	0.73	1.02	0.78	1.03	1.00	0.96
Control Delay (s/veh)	84.5	18.8	72.3	15.3	92.2	83.8	69.3
Queue Delay	0.0	0.7	8.8	0.0	0.0	0.0	0.0
Total Delay (s/veh)	84.5	19.6	81.1	15.3	92.2	83.8	69.3
LOS	F	B	F	B	F	F	E
Approach Delay (s/veh)		44.1	56.1			82.0	
Approach LOS		D	E			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay (s/veh): 57.9	Intersection LOS: E
Intersection Capacity Utilization 118.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.



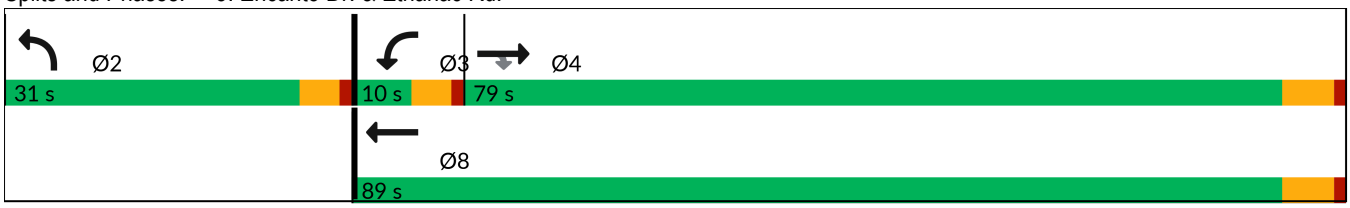


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	932	1538	0	0	1123	689	1039	0	493	0	0	0
Future Volume (veh/h)	932	1538	0	0	1123	689	1039	0	493	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	951	1569	0	0	1146	397	1060	0	279			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	917	2132	0	0	1124	523	1056	0	470			
Arrive On Green	0.38	1.00	0.00	0.00	0.65	0.49	0.44	0.00	0.44			
Sat Flow, veh/h	3619	3629	0	0	3629	1610	3619	0	1610			
Grp Volume(v), veh/h	951	1569	0	0	1146	397	1060	0	279			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	30.4	0.0	0.0	0.0	39.0	24.1	35.0	0.0	15.8			
Cycle Q Clear(g_c), s	30.4	0.0	0.0	0.0	39.0	24.1	35.0	0.0	15.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	917	2132	0	0	1124	523	1056	0	470			
V/C Ratio(X)	1.04	0.74	0.00	0.00	1.02	0.76	1.00	0.00	0.59			
Avail Cap(c_a), veh/h	917	2132	0	0	1124	523	1056	0	470			
HCM Platoon Ratio	1.50	2.00	1.00	1.00	2.00	1.50	1.50	1.50	1.50			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	37.2	0.0	0.0	0.0	21.0	26.9	33.7	0.0	28.4			
Incr Delay (d2), s/veh	39.8	1.4	0.0	0.0	31.9	6.3	28.7	0.0	2.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	16.6	0.4	0.0	0.0	13.0	8.5	16.2	0.0	5.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	77.0	1.4	0.0	0.0	52.9	33.3	62.5	0.0	30.4			
LnGrp LOS	F	A			F	C	F		C			
Approach Vol, veh/h		2520			1543			1339				
Approach Delay, s/veh		29.9			47.9			55.8				
Approach LOS		C			D			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		80.0			35.0	45.0		40.0				
Change Period (Y+Rc), s		6.0			4.6	6.0		5.0				
Max Green Setting (Gmax), s		74.0			30.4	39.0		35.0				
Max Q Clear Time (g_c+I1), s		2.0			32.4	41.0		37.0				
Green Ext Time (p_c), s		19.0			0.0	0.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			41.4									
HCM 7th LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations					
Traffic Volume (vph)	1867	163	23	1593	218
Future Volume (vph)	1867	163	23	1593	218
Turn Type	NA	Perm	Prot	NA	Prot
Protected Phases	4		3	8	2
Permitted Phases		4			
Detector Phase	4	4	3	8	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	27.8	27.8	9.6	27.8	26.6
Total Split (s)	79.0	79.0	10.0	89.0	31.0
Total Split (%)	65.8%	65.8%	8.3%	74.2%	25.8%
Yellow Time (s)	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	62.1	62.1	5.6	67.1	20.0
Actuated g/C Ratio	0.63	0.63	0.06	0.68	0.20
v/c Ratio	0.83	0.15	0.22	0.66	0.75
Control Delay (s/veh)	19.7	3.7	59.4	10.5	52.8
Queue Delay	0.9	0.0	0.0	0.6	0.0
Total Delay (s/veh)	20.7	3.7	59.4	11.1	52.8
LOS	C	A	E	B	D
Approach Delay (s/veh)	19.4			11.8	52.9
Approach LOS	B			B	D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 98.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 18.6	Intersection LOS: B
Intersection Capacity Utilization 75.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Encanto Dr. & Ethanac Rd.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1867	163	23	1593	218	57
Future Volume (veh/h)	1867	163	23	1593	218	57
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1905	64	23	1626	222	38
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2329	1039	44	2597	253	43
Arrive On Green	0.65	0.65	0.02	0.72	0.17	0.17
Sat Flow, veh/h	3705	1610	1810	3705	1512	259
Grp Volume(v), veh/h	1905	64	23	1626	261	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1778	0
Q Serve(g_s), s	36.5	1.4	1.2	21.2	13.2	0.0
Cycle Q Clear(g_c), s	36.5	1.4	1.2	21.2	13.2	0.0
Prop In Lane		1.00	1.00		0.85	0.15
Lane Grp Cap(c), veh/h	2329	1039	44	2597	298	0
V/C Ratio(X)	0.82	0.06	0.53	0.63	0.88	0.00
Avail Cap(c_a), veh/h	2873	1282	106	3266	510	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.3	6.0	44.4	6.6	37.3	0.0
Incr Delay (d2), s/veh	1.6	0.0	3.6	0.3	4.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	0.4	0.5	5.8	5.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	13.9	6.1	48.0	6.8	41.4	0.0
LnGrp LOS	B	A	D	A	D	
Approach Vol, veh/h	1969			1649	261	
Approach Delay, s/veh	13.6			7.4	41.4	
Approach LOS	B			A	D	

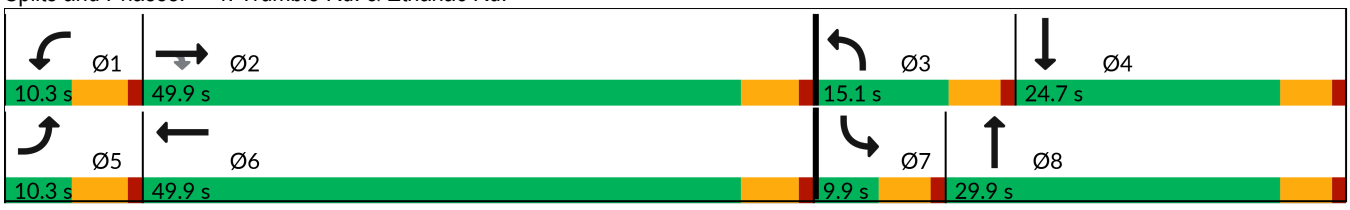
Timer - Assigned Phs	2	3	4		8
Phs Duration (G+Y+Rc), s	20.0	6.8	65.1		72.0
Change Period (Y+Rc), s	4.6	4.6	5.8		5.8
Max Green Setting (Gmax), s	26.4	5.4	73.2		83.2
Max Q Clear Time (g_c+I1), s	15.2	3.2	38.5		23.2
Green Ext Time (p_c), s	0.3	0.0	20.9		19.7

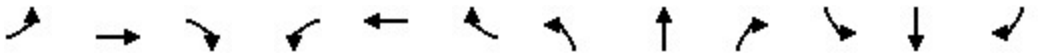
Intersection Summary	
HCM 7th Control Delay, s/veh	12.8
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	81	1972	16	36	2131	80	2	31	7
Future Volume (vph)	81	1972	16	36	2131	80	2	31	7
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	10.3	49.9	49.9	10.3	49.9	15.1	29.9	9.9	24.7
Total Split (%)	10.3%	49.9%	49.9%	10.3%	49.9%	15.1%	29.9%	9.9%	24.7%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	5.1	49.8	49.8	5.1	45.2	7.9	12.9	5.1	8.0
Actuated g/C Ratio	0.06	0.59	0.59	0.06	0.54	0.09	0.15	0.06	0.09
v/c Ratio	0.80	0.99	0.02	0.35	1.18	0.50	0.23	0.31	0.52
Control Delay (s/veh)	89.4	38.5	0.0	51.1	111.3	49.3	10.7	49.5	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	89.4	38.5	0.0	51.1	111.3	49.3	10.7	49.5	14.9
LOS	F	D	A	D	F	D	B	D	B
Approach Delay (s/veh)		40.2			110.3		32.0		21.3
Approach LOS		D			F		C		C

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 84.4	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.18	
Intersection Signal Delay (s/veh): 72.8	Intersection LOS: E
Intersection Capacity Utilization 92.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	1972	16	36	2131	18	80	2	63	31	7	129
Future Volume (veh/h)	81	1972	16	36	2131	18	80	2	63	31	7	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	86	2098	12	38	2267	12	85	2	35	33	7	73
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	2112	939	65	2060	11	110	8	138	59	9	93
Arrive On Green	0.06	0.88	0.58	0.04	0.84	0.56	0.06	0.09	0.09	0.03	0.06	0.06
Sat Flow, veh/h	1810	3610	1605	1810	3682	19	1810	86	1512	1810	143	1489
Grp Volume(v), veh/h	86	2098	12	38	1110	1169	85	0	37	33	0	80
Grp Sat Flow(s),veh/h/ln	1810	1805	1605	1810	1805	1896	1810	0	1598	1810	0	1632
Q Serve(g_s), s	3.7	44.3	0.2	1.6	44.6	44.6	3.7	0.0	1.7	1.4	0.0	3.9
Cycle Q Clear(g_c), s	3.7	44.3	0.2	1.6	44.6	44.6	3.7	0.0	1.7	1.4	0.0	3.9
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.95	1.00		0.91
Lane Grp Cap(c), veh/h	111	2112	939	65	1010	1061	110	0	145	59	0	102
V/C Ratio(X)	0.78	0.99	0.01	0.59	1.10	1.10	0.77	0.00	0.25	0.56	0.00	0.78
Avail Cap(c_a), veh/h	113	2112	939	113	1010	1061	231	0	501	113	0	405
HCM Platoon Ratio	1.00	1.50	1.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.9	4.7	6.9	37.9	6.4	6.5	36.9	0.0	33.7	38.0	0.0	36.8
Incr Delay (d2), s/veh	25.0	18.0	0.0	3.1	59.6	59.8	4.3	0.0	0.3	3.1	0.0	4.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	7.4	0.1	0.7	19.6	20.7	1.7	0.0	0.6	0.7	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	61.9	22.8	6.9	41.0	66.0	66.3	41.2	0.0	34.1	41.1	0.0	41.7
LnGrp LOS	E	C	A	D	F	F	D		C	D		D
Approach Vol, veh/h		2196			2317			122			113	
Approach Delay, s/veh		24.2			65.8			39.0			41.5	
Approach LOS		C			E			D			D	

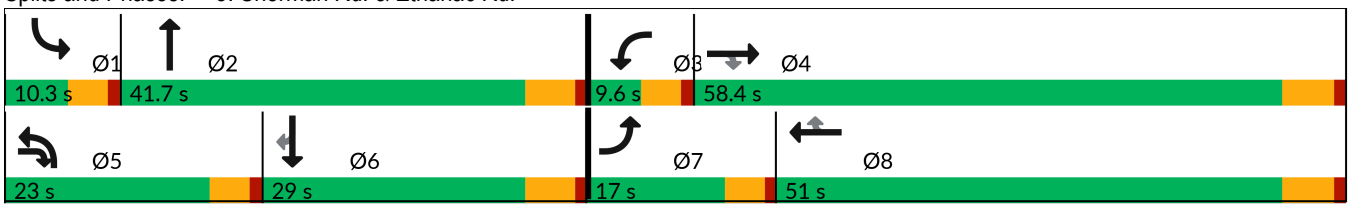
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	51.9	9.7	9.9	10.2	49.9	7.5	12.2
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	5.0	44.6	10.2	19.8	5.0	44.6	5.0	25.0
Max Q Clear Time (g_c+I1), s	3.6	46.3	5.7	5.9	5.7	46.6	3.4	3.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1

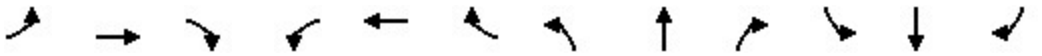
Intersection Summary	
HCM 7th Control Delay, s/veh	45.3
HCM 7th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	205	1513	358	59	1473	25	575	62	20	41	110
Future Volume (vph)	205	1513	358	59	1473	25	575	62	20	41	110
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	28.2	9.6	9.6	28.2	28.2	9.6	27.4	9.6	27.4	27.4
Total Split (s)	17.0	58.4	23.0	9.6	51.0	51.0	23.0	41.7	10.3	29.0	29.0
Total Split (%)	14.2%	48.7%	19.2%	8.0%	42.5%	42.5%	19.2%	34.8%	8.6%	24.2%	24.2%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	4.8	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	5.8	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	12.4	52.7	72.3	5.0	45.3	45.3	18.4	31.3	5.4	12.2	12.2
Actuated g/C Ratio	0.11	0.48	0.66	0.05	0.42	0.42	0.17	0.29	0.05	0.11	0.11
v/c Ratio	1.06	0.93	0.32	0.76	1.05	0.03	1.04	0.31	0.24	0.20	0.33
Control Delay (s/veh)	128.9	37.6	1.4	101.7	70.9	0.0	92.9	20.8	58.0	45.5	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	128.9	37.6	1.4	101.7	70.9	0.0	92.9	20.8	58.0	45.5	2.6
LOS	F	D	A	F	E	A	F	C	E	D	A
Approach Delay (s/veh)		40.4			70.9			77.3		19.6	
Approach LOS		D			E			E		B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 108.8	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay (s/veh): 56.1	Intersection LOS: E
Intersection Capacity Utilization 88.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 5: Sherman Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	1513	358	59	1473	25	575	62	97	20	41	110
Future Volume (veh/h)	205	1513	358	59	1473	25	575	62	97	20	41	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	220	1627	224	63	1584	16	618	67	61	22	44	64
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	212	1800	1066	81	1540	687	609	221	201	41	172	146
Arrive On Green	0.12	0.50	0.50	0.04	0.43	0.43	0.17	0.24	0.24	0.02	0.09	0.09
Sat Flow, veh/h	1810	3610	1577	1810	3610	1610	3510	916	834	1810	1900	1610
Grp Volume(v), veh/h	220	1627	224	63	1584	16	618	0	128	22	44	64
Grp Sat Flow(s),veh/h/ln	1810	1805	1577	1810	1805	1610	1755	0	1750	1810	1900	1610
Q Serve(g_s), s	12.4	43.6	5.8	3.7	45.2	0.6	18.4	0.0	6.3	1.3	2.3	4.0
Cycle Q Clear(g_c), s	12.4	43.6	5.8	3.7	45.2	0.6	18.4	0.0	6.3	1.3	2.3	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	212	1800	1066	81	1540	687	609	0	423	41	172	146
V/C Ratio(X)	1.04	0.90	0.21	0.77	1.03	0.02	1.01	0.00	0.30	0.54	0.26	0.44
Avail Cap(c_a), veh/h	212	1800	1066	85	1540	687	609	0	599	97	423	359
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	24.3	6.6	50.1	30.4	17.6	43.8	0.0	32.9	51.3	44.9	45.7
Incr Delay (d2), s/veh	72.5	6.9	0.1	30.3	30.6	0.0	40.0	0.0	0.4	4.1	0.8	2.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	18.3	1.6	2.3	24.4	0.2	11.2	0.0	2.7	0.6	1.1	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	119.3	31.2	6.7	80.3	61.0	17.6	83.8	0.0	33.3	55.4	45.7	47.7
LnGrp LOS	F	C	A	F	F	B	F		C	E	D	D
Approach Vol, veh/h		2071			1663			746			130	
Approach Delay, s/veh		37.9			61.3			75.1			48.3	
Approach LOS		D			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	31.0	9.4	58.6	23.0	15.0	17.0	51.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.7	36.3	5.0	52.6	18.4	23.6	12.4	45.2
Max Q Clear Time (g_c+I1), s	3.3	8.3	5.7	45.6	20.4	6.0	14.4	47.2
Green Ext Time (p_c), s	0.0	0.7	0.0	5.5	0.0	0.3	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	52.7
HCM 7th LOS	D

APPENDIX 6.8: EAPC (2026) OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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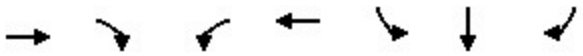


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1677	1140	228	1623	602	578	576
v/c Ratio	1.29	1.17	1.07	1.00	0.77	0.75	0.93
Control Delay (s/veh)	173.8	106.5	138.4	56.7	37.6	33.2	53.5
Queue Delay	0.0	0.0	0.0	6.6	0.0	0.0	0.0
Total Delay (s/veh)	173.8	106.5	138.4	63.3	37.6	33.2	53.5
Queue Length 50th (ft)	~1006	~813	~109	~801	420	349	496
Queue Length 95th (ft)	#1152	#1079	#192	#947	579	498	#800
Internal Link Dist (ft)	624			681		1327	
Turn Bay Length (ft)			275		800		240
Base Capacity (vph)	1292	974	212	1622	829	809	653
Starvation Cap Reductn	0	0	0	37	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.30	1.17	1.08	1.02	0.73	0.71	0.88

Intersection Summary

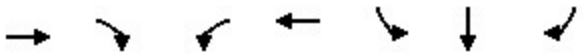
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	858	1514	923	504	473	476	486
v/c Ratio	0.91	0.72	0.88	0.61	0.89	0.86	0.90
Control Delay (s/veh)	57.0	19.1	50.5	7.9	59.6	56.0	55.5
Queue Delay	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.0	19.6	50.5	7.9	59.6	56.0	55.5
Queue Length 50th (ft)	323	431	374	19	357	345	315
Queue Length 95th (ft)	#433	523	#494	116	#551	#527	#517
Internal Link Dist (ft)		681	457			1320	
Turn Bay Length (ft)	245				700		270
Base Capacity (vph)	988	2171	1085	828	564	584	567
Starvation Cap Reductn	0	244	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.79	0.85	0.61	0.84	0.82	0.86

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1770	1046	412	1794	599	576	565
v/c Ratio	1.17	1.02	1.03	0.84	0.95	0.92	0.93
Control Delay (s/veh)	120.6	53.0	110.0	28.3	68.3	58.8	60.8
Queue Delay	0.0	0.0	0.0	7.7	0.0	0.0	0.0
Total Delay (s/veh)	120.6	53.0	110.0	36.0	68.3	58.8	60.8
Queue Length 50th (ft)	~934	~631	~188	608	492	426	420
Queue Length 95th (ft)	#1074	#892	#291	714	#732	#660	#655
Internal Link Dist (ft)	624			681		1327	
Turn Bay Length (ft)			275		800		240
Base Capacity (vph)	1507	1016	398	2124	629	623	605
Starvation Cap Reductn	0	0	0	308	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.17	1.03	1.04	0.99	0.95	0.92	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	951	1569	1146	703	530	530	503
v/c Ratio	1.04	0.73	1.02	0.78	1.03	1.00	0.96
Control Delay (s/veh)	84.5	18.8	72.3	15.3	92.2	83.8	69.3
Queue Delay	0.0	0.7	8.8	0.0	0.0	0.0	0.0
Total Delay (s/veh)	84.5	19.6	81.1	15.3	92.2	83.8	69.3
Queue Length 50th (ft)	~398	439	~517	105	~456	~416	342
Queue Length 95th (ft)	#523	530	#658	283	#677	#644	#567
Internal Link Dist (ft)		681	457			1337	
Turn Bay Length (ft)	245				700		270
Base Capacity (vph)	914	2132	1123	893	510	526	519
Starvation Cap Reductn	0	266	28	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.84	1.05	0.79	1.04	1.01	0.97

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 7.1: HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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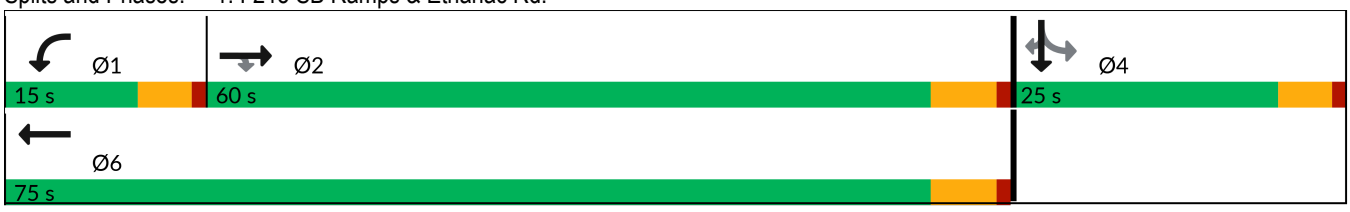
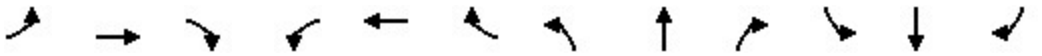
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1718	1166	233	1685	0	1113
Future Volume (vph)	1718	1166	233	1685	0	1113
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	10.0	24.5	24.5	24.5
Total Split (s)	60.0	60.0	15.0	75.0	25.0	25.0
Total Split (%)	60.0%	60.0%	15.0%	75.0%	25.0%	25.0%
Yellow Time (s)	5.0	5.0	4.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	54.0	54.0	10.0	69.0	20.0	20.0
Actuated g/C Ratio	0.54	0.54	0.10	0.69	0.20	0.20
v/c Ratio	1.80	1.10	1.39	0.72	1.98	3.05
Control Delay (s/veh)	385.9	73.1	243.3	11.8	479.9	947.4
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay (s/veh)	385.9	73.1	243.3	12.2	479.9	947.4
LOS	F	E	F	B	F	F
Approach Delay (s/veh)	259.4			40.4	772.2	
Approach LOS	F			D	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.05	
Intersection Signal Delay (s/veh): 334.3	Intersection LOS: F
Intersection Capacity Utilization 290.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1718	1166	233	1685	0	0	0	0	668	0	1113
Future Volume (veh/h)	0	1718	1166	233	1685	0	0	0	0	668	0	1113
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1847	1117	251	1812	0				718	0	1044
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1026	869	181	2491	0				362	0	322
Arrive On Green	0.00	0.54	0.54	0.10	0.69	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1810	0	1610
Grp Volume(v), veh/h	0	1847	1117	251	1812	0				718	0	1044
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	54.0	54.0	10.0	31.2	0.0				20.0	0.0	20.0
Cycle Q Clear(g_c), s	0.0	54.0	54.0	10.0	31.2	0.0				20.0	0.0	20.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1026	869	181	2491	0				362	0	322
V/C Ratio(X)	0.00	1.80	1.28	1.39	0.73	0.00				1.98	0.00	3.24
Avail Cap(c_a), veh/h	0	1026	869	181	2491	0				362	0	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.0	23.0	45.0	9.6	0.0				40.0	0.0	40.0
Incr Delay (d2), s/veh	0.0	364.0	136.8	204.6	1.1	0.0				452.6	0.0	1016.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	124.8	50.9	14.6	10.0	0.0				53.7	0.0	98.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	387.0	159.8	249.6	10.7	0.0				492.6	0.0	1056.9
LnGrp LOS		F	F	F	B					F		F
Approach Vol, veh/h		2964			2063						1762	
Approach Delay, s/veh		301.4			39.8						826.9	
Approach LOS		F			D						F	

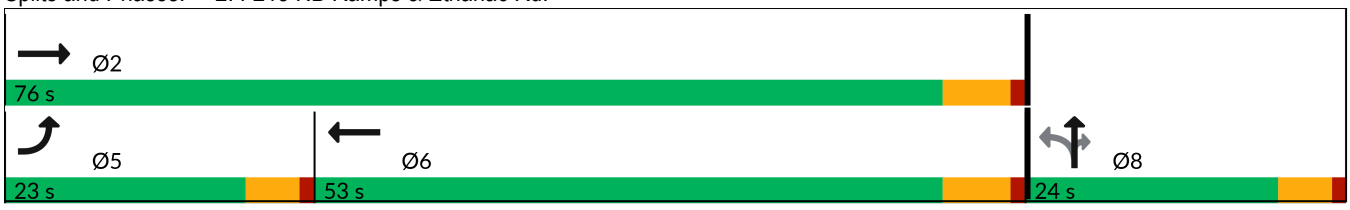
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.0	60.0		25.0		75.0
Change Period (Y+Rc), s	5.0	6.0		5.0		6.0
Max Green Setting (Gmax), s	10.0	54.0		20.0		69.0
Max Q Clear Time (g_c+I1), s	12.0	56.0		22.0		33.2
Green Ext Time (p_c), s	0.0	0.0		0.0		19.4

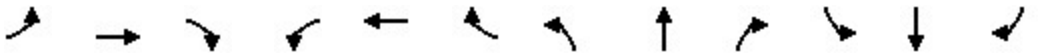
Intersection Summary	
HCM 7th Control Delay, s/veh	358.3
HCM 7th LOS	F

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	868	1518	961	3	481
Future Volume (vph)	868	1518	961	3	481
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.5	23.4	23.4	23.4
Total Split (s)	23.0	76.0	53.0	24.0	24.0
Total Split (%)	23.0%	76.0%	53.0%	24.0%	24.0%
Yellow Time (s)	4.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	18.0	70.0	47.0	19.0	19.0
Actuated g/C Ratio	0.18	0.70	0.47	0.19	0.19
v/c Ratio	2.85	1.21	1.79	2.97	1.36
Control Delay (s/veh)	859.1	122.5	382.3	911.4	206.2
Queue Delay	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	859.1	122.6	382.3	911.4	206.2
LOS	F	F	F	F	F
Approach Delay (s/veh)		390.5	382.3	675.9	
Approach LOS		F	F	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.97	
Intersection Signal Delay (s/veh): 465.9	Intersection LOS: F
Intersection Capacity Utilization 290.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	868	1518	0	0	961	504	957	3	481	0	0	0
Future Volume (veh/h)	868	1518	0	0	961	504	957	3	481	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	923	1615	0	0	1022	481	1018	3	448			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	326	1330	0	0	574	270	343	1	306			
Arrive On Green	0.18	0.70	0.00	0.00	0.47	0.47	0.19	0.19	0.19			
Sat Flow, veh/h	1810	1900	0	0	1222	575	1804	5	1610			
Grp Volume(v), veh/h	923	1615	0	0	0	1503	1021	0	448			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	0	1797	1810	0	1610			
Q Serve(g_s), s	18.0	70.0	0.0	0.0	0.0	47.0	19.0	0.0	19.0			
Cycle Q Clear(g_c), s	18.0	70.0	0.0	0.0	0.0	47.0	19.0	0.0	19.0			
Prop In Lane	1.00		0.00	0.00		0.32	1.00		1.00			
Lane Grp Cap(c), veh/h	326	1330	0	0	0	844	344	0	306			
V/C Ratio(X)	2.83	1.21	0.00	0.00	0.00	1.78	2.97	0.00	1.46			
Avail Cap(c_a), veh/h	326	1330	0	0	0	844	344	0	306			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.0	15.0	0.0	0.0	0.0	26.5	40.5	0.0	40.5			
Incr Delay (d2), s/veh	833.7	103.6	0.0	0.0	0.0	355.8	894.0	0.0	226.1			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	83.1	60.4	0.0	0.0	0.0	101.6	93.2	0.0	26.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	874.7	118.6	0.0	0.0	0.0	382.3	934.5	0.0	266.6			
LnGrp LOS	F	F				F	F		F			
Approach Vol, veh/h		2538			1503			1469				
Approach Delay, s/veh		393.5			382.3			730.8				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.0			23.0	53.0		24.0				
Change Period (Y+Rc), s		6.0			5.0	6.0		5.0				
Max Green Setting (Gmax), s		70.0			18.0	47.0		19.0				
Max Q Clear Time (g_c+I1), s		72.0			20.0	49.0		21.0				
Green Ext Time (p_c), s		0.0			0.0	0.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			480.4									
HCM 7th LOS			F									

Intersection	
Int Delay, s/veh	192.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1890	109	41	1194	271	48
Future Vol, veh/h	1890	109	41	1194	271	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2054	118	45	1298	295	52

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2173	0	3501	2114
Stage 1	-	-	-	-	2114	-
Stage 2	-	-	-	-	1387	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	249	-	~ 7	65
Stage 1	-	-	-	-	~ 102	-
Stage 2	-	-	-	-	~ 234	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	249	-	~ 6	65
Mov Cap-2 Maneuver	-	-	-	-	~ 63	-
Stage 1	-	-	-	-	~ 102	-
Stage 2	-	-	-	-	~ 192	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.75	$ 2140.24
HCM LOS			F

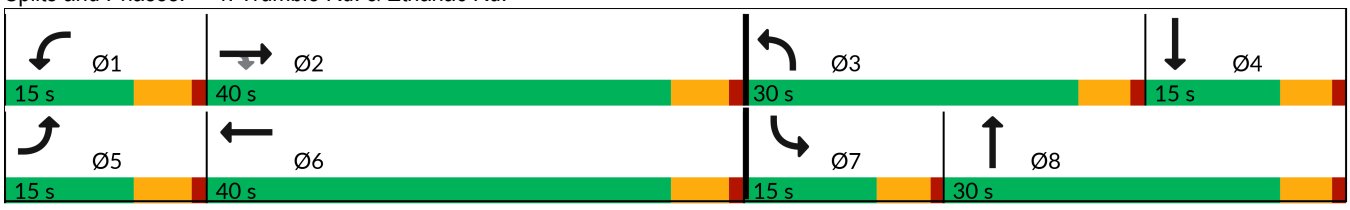
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	63	-	-	249	-
HCM Lane V/C Ratio	5.469	-	-	0.179	-
HCM Control Delay (s/veh)	$ 2140.2	-	-	22.6	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	38.8	-	-	0.6	-

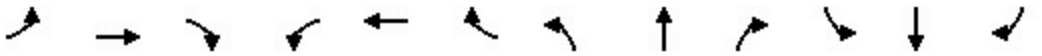
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	135	2405	7	54	1087	76	9	24	12
Future Volume (vph)	135	2405	7	54	1087	76	9	24	12
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	9.4	42.7	42.7	7.0	35.4	8.2	12.1	5.9	8.1
Actuated g/C Ratio	0.12	0.54	0.54	0.09	0.45	0.10	0.15	0.07	0.10
v/c Ratio	0.69	2.59	0.01	0.37	1.47	0.45	0.21	0.19	0.59
Control Delay (s/veh)	55.2	734.7	0.0	43.9	239.0	43.9	12.6	41.8	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.2	734.7	0.0	43.9	239.0	43.9	12.6	41.8	14.7
LOS	E	F	A	D	F	D	B	D	B
Approach Delay (s/veh)		696.6			230.1		30.6		17.9
Approach LOS		F			F		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 79.4	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.59	
Intersection Signal Delay (s/veh): 506.2	Intersection LOS: F
Intersection Capacity Utilization 154.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	2405	7	54	1087	36	76	9	47	24	12	163
Future Volume (veh/h)	135	2405	7	54	1087	36	76	9	47	24	12	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	148	2643	8	59	1195	40	84	10	50	26	13	172
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	184	952	807	84	815	27	110	45	224	50	15	196
Arrive On Green	0.10	0.50	0.50	0.05	0.45	0.45	0.06	0.16	0.16	0.03	0.13	0.13
Sat Flow, veh/h	1810	1900	1610	1810	1828	61	1810	275	1377	1810	114	1513
Grp Volume(v), veh/h	148	2643	8	59	0	1235	84	0	60	26	0	185
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1889	1810	0	1652	1810	0	1628
Q Serve(g_s), s	6.2	39.0	0.2	2.5	0.0	34.7	3.6	0.0	2.5	1.1	0.0	8.7
Cycle Q Clear(g_c), s	6.2	39.0	0.2	2.5	0.0	34.7	3.6	0.0	2.5	1.1	0.0	8.7
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.83	1.00		0.93
Lane Grp Cap(c), veh/h	184	952	807	84	0	842	110	0	269	50	0	211
V/C Ratio(X)	0.80	2.78	0.01	0.70	0.00	1.47	0.77	0.00	0.22	0.52	0.00	0.88
Avail Cap(c_a), veh/h	225	952	807	225	0	842	583	0	533	235	0	211
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.2	19.4	9.7	36.6	0.0	21.6	36.0	0.0	28.3	37.3	0.0	33.3
Incr Delay (d2), s/veh	12.9	801.9	0.0	4.0	0.0	216.5	4.1	0.0	0.2	3.1	0.0	30.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	225.9	0.1	1.1	0.0	63.4	1.6	0.0	0.9	0.5	0.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.1	821.3	9.7	40.6	0.0	238.1	40.1	0.0	28.5	40.4	0.0	63.4
LnGrp LOS	D	F	A	D		F	D		C	D		E
Approach Vol, veh/h		2799			1294			144			211	
Approach Delay, s/veh		778.0			229.1			35.3			60.6	
Approach LOS		F			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	44.3	9.6	15.0	13.2	40.0	7.1	17.6
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	4.5	41.0	5.6	10.7	8.2	36.7	3.1	4.5
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	560.2
HCM 7th LOS	F

Intersection	
Int Delay, s/veh	9256.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	124	1734	577	92	887	29	165	22	24	37	61	208
Future Vol, veh/h	124	1734	577	92	887	29	165	22	24	37	61	208
Conflicting Peds, #/hr	0	0	3	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	136	1905	634	101	975	32	181	24	26	41	67	229

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1007	0	0	2543	0	0	3708	3707	2226	3383	4008	991
Stage 1	-	-	-	-	-	-	2498	2498	-	1193	1193	-
Stage 2	-	-	-	-	-	-	1210	1209	-	2190	2815	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	696	-	-	178	-	-	~ 3	~ 5	55	~ 4	~ 3	301
Stage 1	-	-	-	-	-	-	~ 40	59	-	230	263	-
Stage 2	-	-	-	-	-	-	225	258	-	61	~ 40	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	696	-	-	178	-	-	~ 1	0	55	~ 2	0	301
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 1	0	-	~ 2	0	-
Stage 1	-	-	-	-	-	-	~ 40	58	-	230	0	-
Stage 2	-	-	-	-	-	-	~ 54	0	-	~ 19	~ 40	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.58	4.48	$ 158746.83	$ 10308.23
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1	~ 87	-	-	~ 78	-	-	15
HCM Lane V/C Ratio	331.24	0.196	-	-	0.569	-	-	22.8
HCM Control Delay (s/veh)	$ 158746.8	11.4	0	-	49.1	0	-	$ 10308.2
HCM Lane LOS	F	B	A	-	E	A	-	F
HCM 95th %tile Q(veh)	31.6	0.7	-	-	3	-	-	43.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	0	2	176	671	31
Future Vol, veh/h	17	0	2	176	671	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	0	2	191	729	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	942	746	763	0	-	0
Stage 1	746	-	-	-	-	-
Stage 2	196	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	294	417	859	-	-	-
Stage 1	472	-	-	-	-	-
Stage 2	842	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	294	417	859	-	-	-
Mov Cap-2 Maneuver	390	-	-	-	-	-
Stage 1	471	-	-	-	-	-
Stage 2	842	-	-	-	-	-

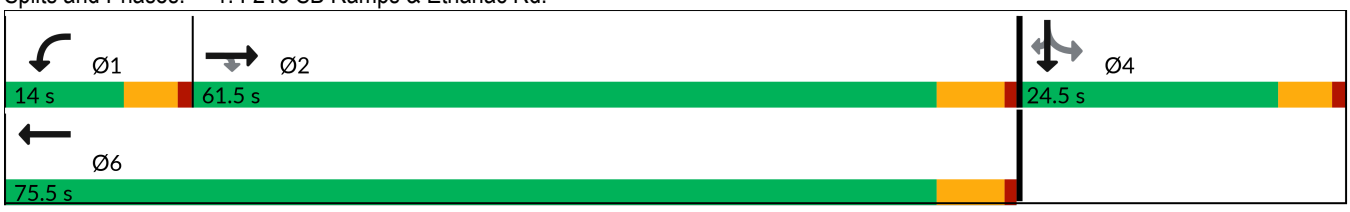
Approach	EB	NB	SB
HCM Control Delay, s/v	14.68	0.1	0
HCM LOS	B		

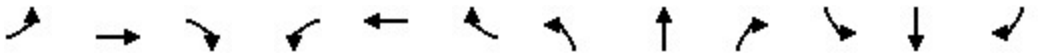
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	859	-	390	-	-
HCM Lane V/C Ratio	0.003	-	0.047	-	-
HCM Control Delay (s/veh)	9.2	-	14.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1958	1127	431	1930	0	1068
Future Volume (vph)	1958	1127	431	1930	0	1068
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	10.0	24.5	24.5	24.5
Total Split (s)	61.5	61.5	14.0	75.5	24.5	24.5
Total Split (%)	61.5%	61.5%	14.0%	75.5%	24.5%	24.5%
Yellow Time (s)	5.0	5.0	4.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	55.5	55.5	9.0	69.5	19.5	19.5
Actuated g/C Ratio	0.56	0.56	0.09	0.70	0.20	0.20
v/c Ratio	1.89	1.02	2.71	0.78	2.37	2.83
Control Delay (s/veh)	427.7	47.0	809.5	13.1	650.9	852.0
Queue Delay	0.0	0.0	0.0	0.7	0.0	0.0
Total Delay (s/veh)	427.7	47.0	809.5	13.9	650.9	852.0
LOS	F	D	F	B	F	F
Approach Delay (s/veh)	288.7			159.2	764.8	
Approach LOS	F			F	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.84	
Intersection Signal Delay (s/veh): 369.5	Intersection LOS: F
Intersection Capacity Utilization 338.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1958	1127	431	1930	0	0	0	0	818	0	1068
Future Volume (veh/h)	0	1958	1127	431	1930	0	0	0	0	818	0	1068
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1998	999	440	1969	0				835	0	927
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1055	894	163	2509	0				353	0	314
Arrive On Green	0.00	0.56	0.56	0.09	0.69	0.00				0.19	0.00	0.19
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1810	0	1610
Grp Volume(v), veh/h	0	1998	999	440	1969	0				835	0	927
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	55.5	55.5	9.0	36.6	0.0				19.5	0.0	19.5
Cycle Q Clear(g_c), s	0.0	55.5	55.5	9.0	36.6	0.0				19.5	0.0	19.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1055	894	163	2509	0				353	0	314
V/C Ratio(X)	0.00	1.89	1.12	2.70	0.78	0.00				2.37	0.00	2.95
Avail Cap(c_a), veh/h	0	1055	894	163	2509	0				353	0	314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.3	22.3	45.5	10.2	0.0				40.3	0.0	40.2
Incr Delay (d2), s/veh	0.0	406.2	68.0	783.0	1.7	0.0				623.6	0.0	887.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	140.3	35.0	39.3	11.7	0.0				69.2	0.0	84.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	428.5	90.2	828.5	11.9	0.0				663.8	0.0	927.4
LnGrp LOS		F	F	F	B					F		F
Approach Vol, veh/h		2997			2409						1762	
Approach Delay, s/veh		315.7			161.1						802.5	
Approach LOS		F			F						F	

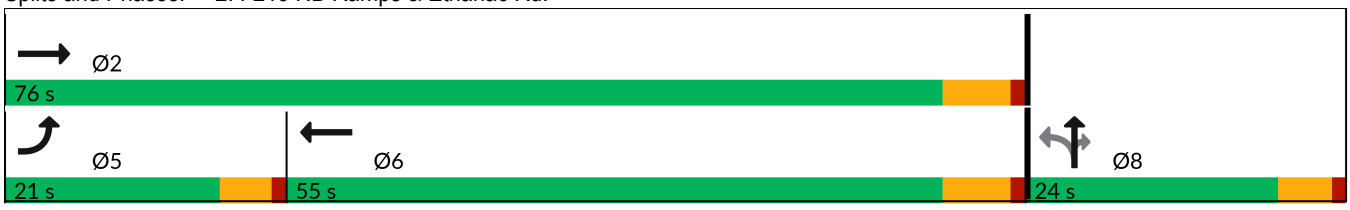
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.0	61.5		24.5		75.5
Change Period (Y+Rc), s	5.0	6.0		5.0		6.0
Max Green Setting (Gmax), s	9.0	55.5		19.5		69.5
Max Q Clear Time (g_c+I1), s	11.0	57.5		21.5		38.6
Green Ext Time (p_c), s	0.0	0.0		0.0		19.9

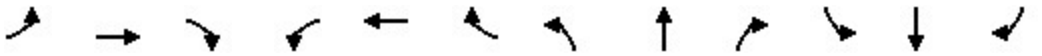
Intersection Summary		
HCM 7th Control Delay, s/veh		383.4
HCM 7th LOS		F

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	1025	1753	1219	0	557
Future Volume (vph)	1025	1753	1219	0	557
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.5	23.4	23.4	23.4
Total Split (s)	21.0	76.0	55.0	24.0	24.0
Total Split (%)	21.0%	76.0%	55.0%	24.0%	24.0%
Yellow Time (s)	4.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	16.0	70.0	49.0	19.0	19.0
Actuated g/C Ratio	0.16	0.70	0.49	0.19	0.19
v/c Ratio	3.63	1.35	2.21	3.41	1.51
Control Delay (s/veh)	Error	180.1	566.9	Error	268.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	Error	180.2	566.9	Error	268.5
LOS	F	F	F	F	F
Approach Delay (s/veh)		559.4	566.9	832.7	
Approach LOS		F	F	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.63	
Intersection Signal Delay (s/veh): 633.9	Intersection LOS: F
Intersection Capacity Utilization 338.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1025	1753	0	0	1219	739	1143	0	557	0	0	0
Future Volume (veh/h)	1025	1753	0	0	1219	739	1143	0	557	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	1046	1789	0	0	1244	708	1166	0	495			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	290	1330	0	0	557	317	344	0	306			
Arrive On Green	0.16	0.70	0.00	0.00	0.49	0.49	0.19	0.00	0.19			
Sat Flow, veh/h	1810	1900	0	0	1137	647	1810	0	1610			
Grp Volume(v), veh/h	1046	1789	0	0	0	1952	1166	0	495			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	0	1784	1810	0	1610			
Q Serve(g_s), s	16.0	70.0	0.0	0.0	0.0	49.0	19.0	0.0	19.0			
Cycle Q Clear(g_c), s	16.0	70.0	0.0	0.0	0.0	49.0	19.0	0.0	19.0			
Prop In Lane	1.00		0.00	0.00		0.36	1.00		1.00			
Lane Grp Cap(c), veh/h	290	1330	0	0	0	874	344	0	306			
V/C Ratio(X)	3.61	1.35	0.00	0.00	0.00	2.23	3.39	0.00	1.62			
Avail Cap(c_a), veh/h	290	1330	0	0	0	874	344	0	306			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	42.0	15.0	0.0	0.0	0.0	25.5	40.5	0.0	40.5			
Incr Delay (d2), s/veh	1184.3	160.4	0.0	0.0	0.0	558.8	1083.5	0.0	292.7			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	102.1	81.4	0.0	0.0	0.0	154.2	111.3	0.0	31.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	1226.3	175.4	0.0	0.0	0.0	584.3	1124.0	0.0	333.2			
LnGrp LOS	F	F				F	F		F			
Approach Vol, veh/h		2835			1952			1661				
Approach Delay, s/veh		563.1			584.3			888.3				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.0			21.0	55.0		24.0				
Change Period (Y+Rc), s		6.0			5.0	6.0		5.0				
Max Green Setting (Gmax), s		70.0			16.0	49.0		19.0				
Max Q Clear Time (g_c+I1), s		72.0			18.0	51.0		21.0				
Green Ext Time (p_c), s		0.0			0.0	0.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			653.3									
HCM 7th LOS			F									

Intersection	
Int Delay, s/veh	169.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2035	276	26	1717	240	62
Future Vol, veh/h	2035	276	26	1717	240	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2077	282	27	1752	245	63

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2358	0	4022	2217
Stage 1	-	-	-	-	2217	-
Stage 2	-	-	-	-	1805	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	211	-	~ 3	~ 56
Stage 1	-	-	-	-	~ 90	-
Stage 2	-	-	-	-	~ 146	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	211	-	~ 3	~ 56
Mov Cap-2 Maneuver	-	-	-	-	~ 49	-
Stage 1	-	-	-	-	~ 90	-
Stage 2	-	-	-	-	~ 127	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.37	$ 2447.45
HCM LOS			F

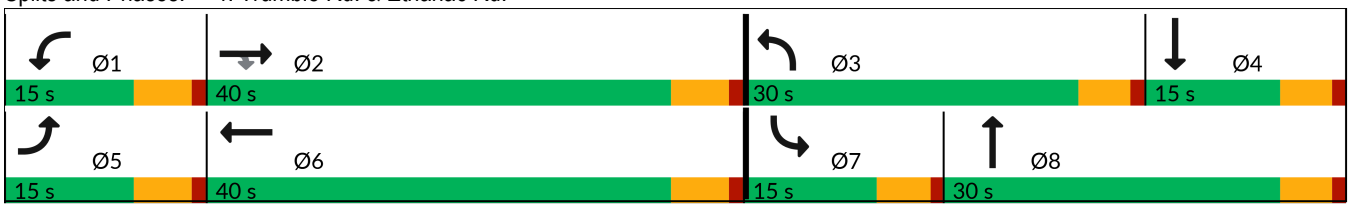
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	51	-	-	211	-
HCM Lane V/C Ratio	6.087	-	-	0.126	-
HCM Control Delay (s/veh)	$ 2447.5	-	-	24.5	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	35.5	-	-	0.4	-

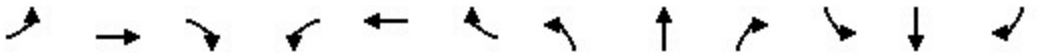
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	90	2151	18	39	2310	88	2	34	8
Future Volume (vph)	90	2151	18	39	2310	88	2	34	8
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	8.0	40.0	40.0	6.6	36.5	8.6	12.2	6.4	8.0
Actuated g/C Ratio	0.10	0.52	0.52	0.09	0.48	0.11	0.16	0.08	0.10
v/c Ratio	0.51	2.30	0.02	0.26	2.74	0.46	0.24	0.24	0.52
Control Delay (s/veh)	46.8	605.2	0.1	41.8	799.7	43.1	10.2	41.7	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.8	605.2	0.1	41.8	799.7	43.1	10.2	41.7	13.9
LOS	D	F	A	D	F	D	B	D	B
Approach Delay (s/veh)		578.1			787.4		28.5		19.0
Approach LOS		F			F		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 76.3	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.74	
Intersection Signal Delay (s/veh): 639.7	Intersection LOS: F
Intersection Capacity Utilization 149.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	2151	18	39	2310	20	88	2	69	34	8	141
Future Volume (veh/h)	90	2151	18	39	2310	20	88	2	69	34	8	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	96	2288	19	41	2457	21	94	2	68	36	9	126
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	967	816	70	901	8	123	6	210	64	11	156
Arrive On Green	0.07	0.51	0.51	0.04	0.48	0.48	0.07	0.14	0.14	0.04	0.10	0.10
Sat Flow, veh/h	1810	1900	1604	1810	1881	16	1810	46	1554	1810	108	1518
Grp Volume(v), veh/h	96	2288	19	41	0	2478	94	0	70	36	0	135
Grp Sat Flow(s),veh/h/ln	1810	1900	1604	1810	0	1897	1810	0	1600	1810	0	1627
Q Serve(g_s), s	3.8	36.9	0.4	1.6	0.0	34.7	3.7	0.0	2.9	1.4	0.0	5.9
Cycle Q Clear(g_c), s	3.8	36.9	0.4	1.6	0.0	34.7	3.7	0.0	2.9	1.4	0.0	5.9
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.97	1.00		0.93
Lane Grp Cap(c), veh/h	124	967	816	70	0	909	123	0	216	64	0	167
V/C Ratio(X)	0.77	2.37	0.02	0.58	0.00	2.73	0.77	0.00	0.32	0.56	0.00	0.81
Avail Cap(c_a), veh/h	242	967	816	242	0	909	627	0	554	252	0	227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.2	17.8	8.8	34.2	0.0	18.9	33.2	0.0	28.3	34.4	0.0	31.8
Incr Delay (d2), s/veh	3.8	617.9	0.0	2.8	0.0	779.9	3.7	0.0	0.3	2.8	0.0	10.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	178.4	0.1	0.7	0.0	209.0	1.7	0.0	1.0	0.6	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.0	635.7	8.8	37.1	0.0	798.8	36.9	0.0	28.7	37.2	0.0	42.1
LnGrp LOS	D	F	A	D		F	D		C	D		D
Approach Vol, veh/h		2403			2519			164			171	
Approach Delay, s/veh		606.9			786.4			33.4			41.1	
Approach LOS		F			F			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	42.2	9.8	12.3	10.3	40.0	7.5	14.7
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	3.6	38.9	5.7	7.9	5.8	36.7	3.4	4.9
Green Ext Time (p_c), s	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	656.6
HCM 7th LOS	F

Intersection	
Int Delay, s/veh	63962

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	226	1664	375	64	1620	27	598	66	102	30	44	167
Future Vol, veh/h	226	1664	375	64	1620	27	598	66	102	30	44	167
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	243	1789	403	69	1742	29	643	71	110	32	47	180

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1771	0	0	2192	0	0	4380	4385	1991	4205	4573	1756
Stage 1	-	-	-	-	-	-	2477	2477	-	1894	1894	-
Stage 2	-	-	-	-	-	-	1903	1909	-	2311	2678	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	356	-	-	245	-	-	~ 1	~ 2	~ 77	~ 1	~ 1	~ 107
Stage 1	-	-	-	-	-	-	~ 41	~ 60	-	91	119	-
Stage 2	-	-	-	-	-	-	~ 90	117	-	52	~ 47	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	356	-	-	245	-	-	~ 1	0	~ 77	~ 1	0	~ 107
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 1	0	-	~ 1	0	-
Stage 1	-	-	-	-	-	-	~ 41	~ 60	-	91	0	-
Stage 2	-	-	-	-	-	-	-	0	-	~ 4	~ 47	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	3.41	0.95	$ 410364.06	$ 18151.68
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1	~ 173	-	-	~ 3	-	-	7
HCM Lane V/C Ratio	895.585	0.682	-	-	0.281	-	-	38.928
HCM Control Delay (s/veh)	$ 410364.1	34.2	0	-	25.4	0	-	$ 18151.7
HCM Lane LOS	F	D	A	-	D	A	-	F
HCM 95th %tile Q(veh)	105.8	4.8	-	-	1.1	-	-	34.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	32	2	1	701	438	24
Future Vol, veh/h	32	2	1	701	438	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	35	2	1	762	476	26

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1253	489	502	0	-	0
Stage 1	489	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	192	583	1073	-	-	-
Stage 1	621	-	-	-	-	-
Stage 2	463	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	192	583	1073	-	-	-
Mov Cap-2 Maneuver	327	-	-	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	463	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	17.06	0.01	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1073	-	335	-	-
HCM Lane V/C Ratio	0.001	-	0.11	-	-
HCM Control Delay (s/veh)	8.4	-	17.1	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

APPENDIX 7.2: HORIZON YEAR (2045) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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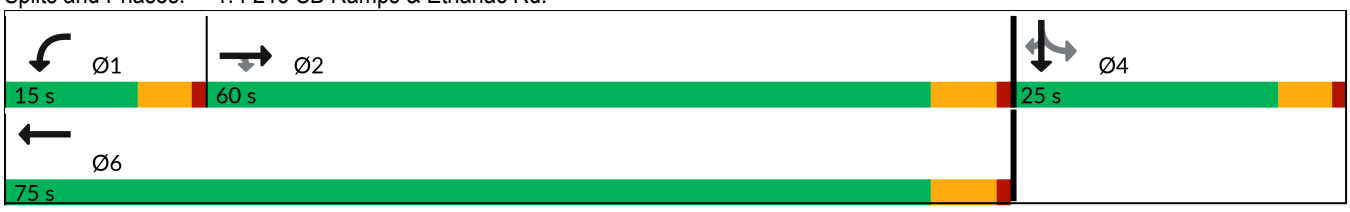
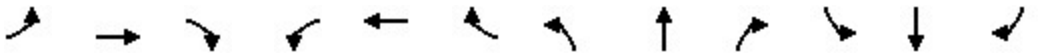
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1721	1166	237	1686	0	1113
Future Volume (vph)	1721	1166	237	1686	0	1113
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	10.0	24.5	24.5	24.5
Total Split (s)	60.0	60.0	15.0	75.0	25.0	25.0
Total Split (%)	60.0%	60.0%	15.0%	75.0%	25.0%	25.0%
Yellow Time (s)	5.0	5.0	4.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	54.0	54.0	10.0	69.0	20.0	20.0
Actuated g/C Ratio	0.54	0.54	0.10	0.69	0.20	0.20
v/c Ratio	1.80	1.10	1.41	0.72	2.03	3.05
Control Delay (s/veh)	387.6	73.1	252.0	11.8	500.4	947.4
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay (s/veh)	387.6	73.1	252.0	12.3	500.4	947.4
LOS	F	E	F	B	F	F
Approach Delay (s/veh)	260.6			41.9	777.4	
Approach LOS	F			D	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.05	
Intersection Signal Delay (s/veh): 337.5	Intersection LOS: F
Intersection Capacity Utilization 291.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1721	1166	237	1686	0	0	0	0	684	0	1113
Future Volume (veh/h)	0	1721	1166	237	1686	0	0	0	0	684	0	1113
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1851	1117	255	1813	0				735	0	1044
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1026	869	181	2491	0				362	0	322
Arrive On Green	0.00	0.54	0.54	0.10	0.69	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1810	0	1610
Grp Volume(v), veh/h	0	1851	1117	255	1813	0				735	0	1044
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	54.0	54.0	10.0	31.3	0.0				20.0	0.0	20.0
Cycle Q Clear(g_c), s	0.0	54.0	54.0	10.0	31.3	0.0				20.0	0.0	20.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1026	869	181	2491	0				362	0	322
V/C Ratio(X)	0.00	1.80	1.28	1.41	0.73	0.00				2.03	0.00	3.24
Avail Cap(c_a), veh/h	0	1026	869	181	2491	0				362	0	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.0	23.0	45.0	9.7	0.0				40.0	0.0	40.0
Incr Delay (d2), s/veh	0.0	365.7	136.8	213.7	1.1	0.0				473.5	0.0	1016.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	125.3	50.9	15.1	10.0	0.0				55.8	0.0	98.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	388.7	159.8	258.7	10.8	0.0				513.5	0.0	1056.9
LnGrp LOS		F	F	F	B					F		F
Approach Vol, veh/h		2968			2068						1779	
Approach Delay, s/veh		302.6			41.3						832.4	
Approach LOS		F			D						F	

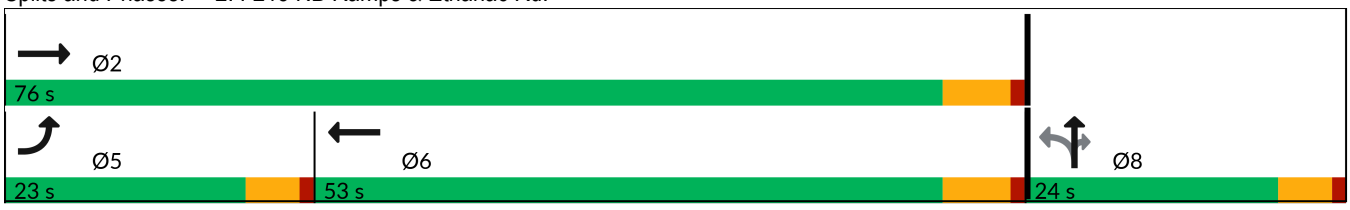
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.0	60.0		25.0		75.0
Change Period (Y+Rc), s	5.0	6.0		5.0		6.0
Max Green Setting (Gmax), s	10.0	54.0		20.0		69.0
Max Q Clear Time (g_c+I1), s	12.0	56.0		22.0		33.3
Green Ext Time (p_c), s	0.0	0.0		0.0		19.4

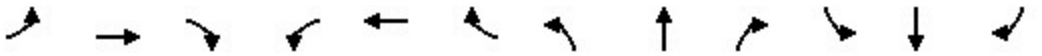
Intersection Summary	
HCM 7th Control Delay, s/veh	361.6
HCM 7th LOS	F

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	868	1537	966	3	492
Future Volume (vph)	868	1537	966	3	492
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.5	23.4	23.4	23.4
Total Split (s)	23.0	76.0	53.0	24.0	24.0
Total Split (%)	23.0%	76.0%	53.0%	24.0%	24.0%
Yellow Time (s)	4.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	18.0	70.0	47.0	19.0	19.0
Actuated g/C Ratio	0.18	0.70	0.47	0.19	0.19
v/c Ratio	2.85	1.23	1.81	2.97	1.39
Control Delay (s/veh)	859.1	129.0	389.8	911.4	218.3
Queue Delay	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	859.1	129.1	389.8	911.4	218.3
LOS	F	F	F	F	F
Approach Delay (s/veh)		392.5	389.8	676.6	
Approach LOS		F	F	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.97	
Intersection Signal Delay (s/veh): 469.1	Intersection LOS: F
Intersection Capacity Utilization 291.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	868	1537	0	0	966	510	957	3	492	0	0	0
Future Volume (veh/h)	868	1537	0	0	966	510	957	3	492	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	923	1635	0	0	1028	488	1018	3	459			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	326	1330	0	0	572	272	343	1	306			
Arrive On Green	0.18	0.70	0.00	0.00	0.47	0.47	0.19	0.19	0.19			
Sat Flow, veh/h	1810	1900	0	0	1218	578	1804	5	1610			
Grp Volume(v), veh/h	923	1635	0	0	0	1516	1021	0	459			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	0	1796	1810	0	1610			
Q Serve(g_s), s	18.0	70.0	0.0	0.0	0.0	47.0	19.0	0.0	19.0			
Cycle Q Clear(g_c), s	18.0	70.0	0.0	0.0	0.0	47.0	19.0	0.0	19.0			
Prop In Lane	1.00		0.00	0.00		0.32	1.00		1.00			
Lane Grp Cap(c), veh/h	326	1330	0	0	0	844	344	0	306			
V/C Ratio(X)	2.83	1.23	0.00	0.00	0.00	1.80	2.97	0.00	1.50			
Avail Cap(c_a), veh/h	326	1330	0	0	0	844	344	0	306			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.0	15.0	0.0	0.0	0.0	26.5	40.5	0.0	40.5			
Incr Delay (d2), s/veh	833.7	110.0	0.0	0.0	0.0	363.0	894.0	0.0	241.6			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	83.1	62.8	0.0	0.0	0.0	103.2	93.2	0.0	27.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	874.7	125.0	0.0	0.0	0.0	389.5	934.5	0.0	282.1			
LnGrp LOS	F	F				F	F		F			
Approach Vol, veh/h		2558			1516			1480				
Approach Delay, s/veh		395.5			389.5			732.2				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.0			23.0	53.0		24.0				
Change Period (Y+Rc), s		6.0			5.0	6.0		5.0				
Max Green Setting (Gmax), s		70.0			18.0	47.0		19.0				
Max Q Clear Time (g_c+I1), s		72.0			20.0	49.0		21.0				
Green Ext Time (p_c), s		0.0			0.0	0.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			483.6									
HCM 7th LOS			F									

Intersection	
Int Delay, s/veh	198.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1920	109	41	1206	271	48
Future Vol, veh/h	1920	109	41	1206	271	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2087	118	45	1311	295	52

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2205	0	3546	2146
Stage 1	-	-	-	-	2146	-
Stage 2	-	-	-	-	1400	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	242	-	~ 7	62
Stage 1	-	-	-	-	~ 98	-
Stage 2	-	-	-	-	~ 231	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	242	-	~ 5	62
Mov Cap-2 Maneuver	-	-	-	-	~ 61	-
Stage 1	-	-	-	-	~ 98	-
Stage 2	-	-	-	-	~ 188	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.76	$ 2234.15
HCM LOS			F

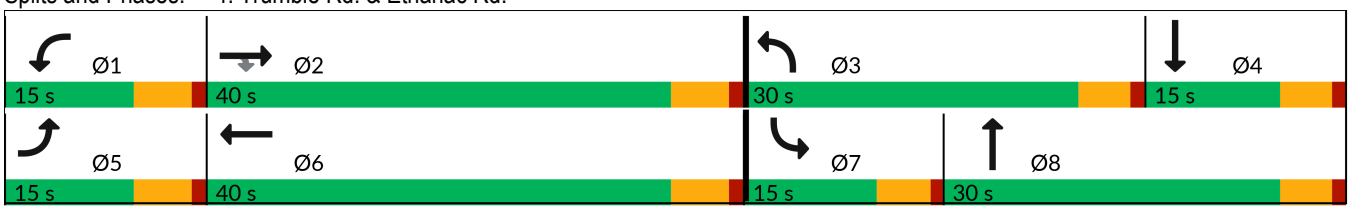
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	61	-	-	242	-
HCM Lane V/C Ratio	5.669	-	-	0.184	-
HCM Control Delay (s/veh)	$ 2234.2	-	-	23.2	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	39	-	-	0.7	-

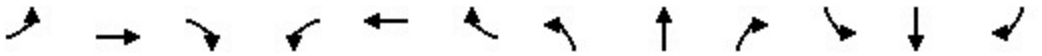
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	135	2435	7	54	1099	76	9	24	12
Future Volume (vph)	135	2435	7	54	1099	76	9	24	12
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	9.4	42.7	42.7	7.0	35.4	8.2	12.1	5.9	8.1
Actuated g/C Ratio	0.12	0.54	0.54	0.09	0.45	0.10	0.15	0.07	0.10
v/c Ratio	0.69	2.62	0.01	0.37	1.48	0.45	0.21	0.19	0.59
Control Delay (s/veh)	55.2	749.1	0.0	43.9	245.7	43.9	12.6	41.8	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.2	749.1	0.0	43.9	245.7	43.9	12.6	41.8	14.7
LOS	E	F	A	D	F	D	B	D	B
Approach Delay (s/veh)		710.7			236.6		30.6		17.9
Approach LOS		F			F		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 79.4	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.62	
Intersection Signal Delay (s/veh): 517.5	Intersection LOS: F
Intersection Capacity Utilization 155.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	2435	7	54	1099	36	76	9	47	24	12	163
Future Volume (veh/h)	135	2435	7	54	1099	36	76	9	47	24	12	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	148	2676	8	59	1208	40	84	10	50	26	13	172
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	184	952	807	84	815	27	110	45	224	50	15	196
Arrive On Green	0.10	0.50	0.50	0.05	0.45	0.45	0.06	0.16	0.16	0.03	0.13	0.13
Sat Flow, veh/h	1810	1900	1610	1810	1829	61	1810	275	1377	1810	114	1513
Grp Volume(v), veh/h	148	2676	8	59	0	1248	84	0	60	26	0	185
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1889	1810	0	1652	1810	0	1628
Q Serve(g_s), s	6.2	39.0	0.2	2.5	0.0	34.7	3.6	0.0	2.5	1.1	0.0	8.7
Cycle Q Clear(g_c), s	6.2	39.0	0.2	2.5	0.0	34.7	3.6	0.0	2.5	1.1	0.0	8.7
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.83	1.00		0.93
Lane Grp Cap(c), veh/h	184	952	807	84	0	842	110	0	269	50	0	211
V/C Ratio(X)	0.80	2.81	0.01	0.70	0.00	1.48	0.77	0.00	0.22	0.52	0.00	0.88
Avail Cap(c_a), veh/h	225	952	807	225	0	842	583	0	533	235	0	211
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.2	19.4	9.7	36.6	0.0	21.6	36.0	0.0	28.3	37.3	0.0	33.3
Incr Delay (d2), s/veh	12.9	817.5	0.0	4.0	0.0	223.3	4.1	0.0	0.2	3.1	0.0	30.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	230.0	0.1	1.1	0.0	65.0	1.6	0.0	0.9	0.5	0.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.1	836.9	9.7	40.6	0.0	244.8	40.1	0.0	28.5	40.4	0.0	63.4
LnGrp LOS	D	F	A	D		F	D		C	D		E
Approach Vol, veh/h		2832			1307			144			211	
Approach Delay, s/veh		793.3			235.6			35.3			60.6	
Approach LOS		F			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	44.3	9.6	15.0	13.2	40.0	7.1	17.6
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	4.5	41.0	5.6	10.7	8.2	36.7	3.1	4.5
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	572.4
HCM 7th LOS	F

Intersection	
Int Delay, s/veh	10817.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	124	1734	607	96	887	29	177	23	25	37	64	208
Future Vol, veh/h	124	1734	607	96	887	29	177	23	25	37	64	208
Conflicting Peds, #/hr	0	0	3	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	136	1905	667	105	975	32	195	25	27	41	70	229

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1007	0	0	2576	0	0	3735	3732	2242	3392	4050	991
Stage 1	-	-	-	-	-	-	2515	2515	-	1202	1202	-
Stage 2	-	-	-	-	-	-	1221	1218	-	2191	2848	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	696	-	-	173	-	-	~ 2	~ 4	54	~ 4	~ 3	301
Stage 1	-	-	-	-	-	-	~ 39	57	-	228	260	-
Stage 2	-	-	-	-	-	-	222	256	-	61	~ 38	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	696	-	-	172	-	-	~ 1	0	54	~ 2	0	301
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 1	0	-	~ 2	0	-
Stage 1	-	-	-	-	-	-	~ 39	57	-	228	0	-
Stage 2	-	-	-	-	-	-	~ 54	0	-	~ 17	~ 38	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.57	5.14	$ 177347.9	$ 11256.54
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1	~ 86	-	-	~ 75	-	-	14
HCM Lane V/C Ratio	371.398	0.196	-	-	0.612	-	-	24.824
HCM Control Delay (s/veh)	$ 177347.9	11.4	0	-	54.2	0	-	$ 11256.5
HCM Lane LOS	F	B	A	-	F	A	-	F
HCM 95th %tile Q(veh)	33.6	0.7	-	-	3.4	-	-	43.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	0	2	200	720	18
Future Vol, veh/h	7	0	2	200	720	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	0	2	217	783	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1014	792	802	0	-	0
Stage 1	792	-	-	-	-	-
Stage 2	222	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	267	392	830	-	-	-
Stage 1	449	-	-	-	-	-
Stage 2	820	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	266	392	830	-	-	-
Mov Cap-2 Maneuver	368	-	-	-	-	-
Stage 1	448	-	-	-	-	-
Stage 2	820	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	14.99	0.09	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	830	-	368	-	-
HCM Lane V/C Ratio	0.003	-	0.021	-	-
HCM Control Delay (s/veh)	9.3	-	15	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	0	4	178	671	49
Future Vol, veh/h	24	0	4	178	671	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	26	0	4	193	729	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	958	756	783	0	-	0
Stage 1	756	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	288	411	844	-	-	-
Stage 1	467	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	286	411	844	-	-	-
Mov Cap-2 Maneuver	384	-	-	-	-	-
Stage 1	465	-	-	-	-	-
Stage 2	837	-	-	-	-	-

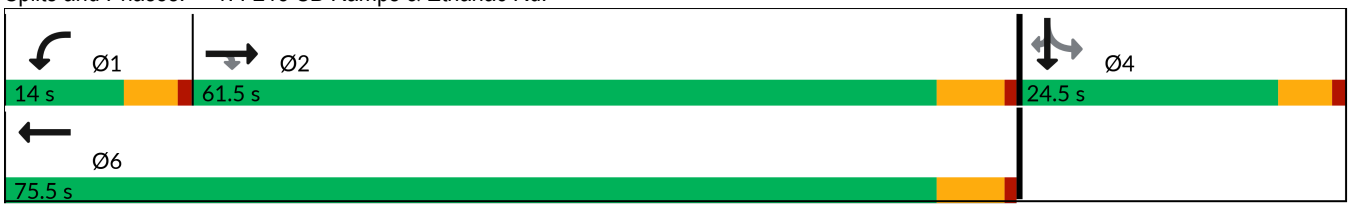
Approach	EB	NB	SB
HCM Control Delay, s/v	15.04	0.2	0
HCM LOS	C		

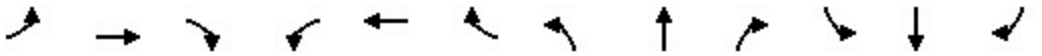
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	844	-	384	-	-
HCM Lane V/C Ratio	0.005	-	0.068	-	-
HCM Control Delay (s/veh)	9.3	-	15	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1959	1127	443	1933	0	1068
Future Volume (vph)	1959	1127	443	1933	0	1068
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.4	23.4	10.0	24.5	24.5	24.5
Total Split (s)	61.5	61.5	14.0	75.5	24.5	24.5
Total Split (%)	61.5%	61.5%	14.0%	75.5%	24.5%	24.5%
Yellow Time (s)	5.0	5.0	4.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	55.5	55.5	9.0	69.5	19.5	19.5
Actuated g/C Ratio	0.56	0.56	0.09	0.70	0.20	0.20
v/c Ratio	1.89	1.02	2.79	0.78	2.40	2.83
Control Delay (s/veh)	428.1	47.0	842.1	13.2	663.4	852.0
Queue Delay	0.0	0.0	0.0	0.7	0.0	0.0
Total Delay (s/veh)	428.1	47.0	842.1	13.9	663.4	852.0
LOS	F	D	F	B	F	F
Approach Delay (s/veh)	289.0			168.4	769.7	
Approach LOS	F			F	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.84	
Intersection Signal Delay (s/veh): 373.9	Intersection LOS: F
Intersection Capacity Utilization 340.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1959	1127	443	1933	0	0	0	0	828	0	1068
Future Volume (veh/h)	0	1959	1127	443	1933	0	0	0	0	828	0	1068
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1999	999	452	1972	0				845	0	927
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1055	894	163	2509	0				353	0	314
Arrive On Green	0.00	0.56	0.56	0.09	0.69	0.00				0.19	0.00	0.19
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1810	0	1610
Grp Volume(v), veh/h	0	1999	999	452	1972	0				845	0	927
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	55.5	55.5	9.0	36.7	0.0				19.5	0.0	19.5
Cycle Q Clear(g_c), s	0.0	55.5	55.5	9.0	36.7	0.0				19.5	0.0	19.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1055	894	163	2509	0				353	0	314
V/C Ratio(X)	0.00	1.90	1.12	2.78	0.79	0.00				2.39	0.00	2.95
Avail Cap(c_a), veh/h	0	1055	894	163	2509	0				353	0	314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.3	22.3	45.5	10.3	0.0				40.3	0.0	40.2
Incr Delay (d2), s/veh	0.0	406.6	68.0	815.9	1.7	0.0				636.3	0.0	887.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	140.5	35.0	40.8	11.7	0.0				70.4	0.0	84.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	428.9	90.2	861.4	12.0	0.0				676.5	0.0	927.4
LnGrp LOS		F	F	F	B					F		F
Approach Vol, veh/h		2998			2424						1772	
Approach Delay, s/veh		316.0			170.4						807.8	
Approach LOS		F			F						F	

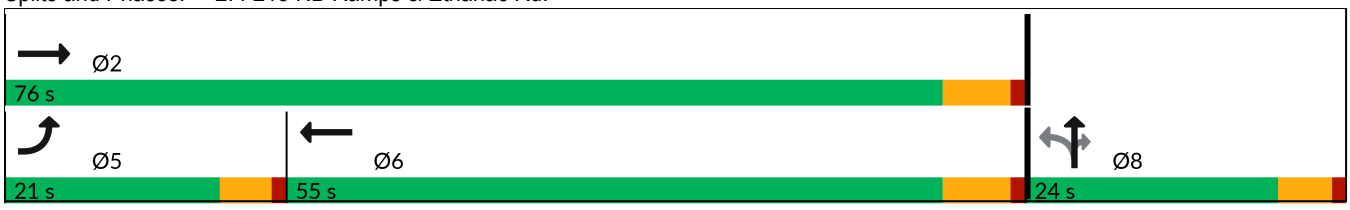
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.0	61.5		24.5		75.5
Change Period (Y+Rc), s	5.0	6.0		5.0		6.0
Max Green Setting (Gmax), s	9.0	55.5		19.5		69.5
Max Q Clear Time (g_c+I1), s	11.0	57.5		21.5		38.7
Green Ext Time (p_c), s	0.0	0.0		0.0		19.9

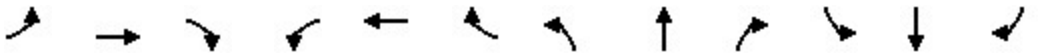
Intersection Summary		
HCM 7th Control Delay, s/veh		388.1
HCM 7th LOS		F

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	1025	1764	1234	0	564
Future Volume (vph)	1025	1764	1234	0	564
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	24.5	23.4	23.4	23.4
Total Split (s)	21.0	76.0	55.0	24.0	24.0
Total Split (%)	21.0%	76.0%	55.0%	24.0%	24.0%
Yellow Time (s)	4.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effct Green (s)	16.0	70.0	49.0	19.0	19.0
Actuated g/C Ratio	0.16	0.70	0.49	0.19	0.19
v/c Ratio	3.63	1.35	2.24	3.41	1.53
Control Delay (s/veh)	Error	183.8	582.6	Error	277.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	Error	183.8	582.6	Error	277.5
LOS	F	F	F	F	F
Approach Delay (s/veh)		560.3	582.6	833.1	
Approach LOS		F	F	F	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.63	
Intersection Signal Delay (s/veh): 638.9	Intersection LOS: F
Intersection Capacity Utilization 340.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1025	1764	0	0	1234	756	1143	0	564	0	0	0
Future Volume (veh/h)	1025	1764	0	0	1234	756	1143	0	564	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	1046	1800	0	0	1259	725	1166	0	503			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	290	1330	0	0	554	319	344	0	306			
Arrive On Green	0.16	0.70	0.00	0.00	0.49	0.49	0.19	0.00	0.19			
Sat Flow, veh/h	1810	1900	0	0	1131	651	1810	0	1610			
Grp Volume(v), veh/h	1046	1800	0	0	0	1984	1166	0	503			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	0	1783	1810	0	1610			
Q Serve(g_s), s	16.0	70.0	0.0	0.0	0.0	49.0	19.0	0.0	19.0			
Cycle Q Clear(g_c), s	16.0	70.0	0.0	0.0	0.0	49.0	19.0	0.0	19.0			
Prop In Lane	1.00		0.00	0.00		0.37	1.00		1.00			
Lane Grp Cap(c), veh/h	290	1330	0	0	0	874	344	0	306			
V/C Ratio(X)	3.61	1.35	0.00	0.00	0.00	2.27	3.39	0.00	1.64			
Avail Cap(c_a), veh/h	290	1330	0	0	0	874	344	0	306			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	42.0	15.0	0.0	0.0	0.0	25.5	40.5	0.0	40.5			
Incr Delay (d2), s/veh	1184.3	164.0	0.0	0.0	0.0	575.7	1083.5	0.0	304.2			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	102.1	82.8	0.0	0.0	0.0	158.2	111.3	0.0	32.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	1226.3	179.0	0.0	0.0	0.0	601.2	1124.0	0.0	344.7			
LnGrp LOS	F	F				F	F		F			
Approach Vol, veh/h		2846			1984			1669				
Approach Delay, s/veh		563.9			601.2			889.1				
Approach LOS		F			F			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.0			21.0	55.0		24.0				
Change Period (Y+Rc), s		6.0			5.0	6.0		5.0				
Max Green Setting (Gmax), s		70.0			16.0	49.0		19.0				
Max Q Clear Time (g_c+I1), s		72.0			18.0	51.0		21.0				
Green Ext Time (p_c), s		0.0			0.0	0.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			658.8									
HCM 7th LOS			F									

Intersection	
Int Delay, s/veh	173.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2052	276	26	1749	240	62
Future Vol, veh/h	2052	276	26	1749	240	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2094	282	27	1785	245	63

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2376	0	4072	2235
Stage 1	-	-	-	-	2235	-
Stage 2	-	-	-	-	1838	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	207	-	~ 3	~ 55
Stage 1	-	-	-	-	~ 88	-
Stage 2	-	-	-	-	~ 140	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	207	-	~ 3	~ 55
Mov Cap-2 Maneuver	-	-	-	-	~ 48	-
Stage 1	-	-	-	-	~ 88	-
Stage 2	-	-	-	-	~ 122	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.36	$ 2531.32
HCM LOS			F

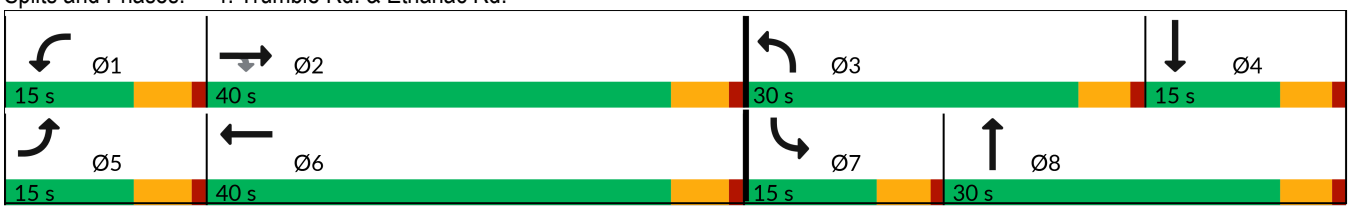
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	49	-	-	207	-
HCM Lane V/C Ratio	6.265	-	-	0.128	-
HCM Control Delay (s/veh)	$ 2531.3	-	-	24.9	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	35.6	-	-	0.4	-

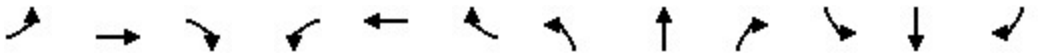
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	90	2168	18	39	2342	88	2	34	8
Future Volume (vph)	90	2168	18	39	2342	88	2	34	8
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	8.0	40.0	40.0	6.6	36.5	8.6	12.2	6.4	8.0
Actuated g/C Ratio	0.10	0.52	0.52	0.09	0.48	0.11	0.16	0.08	0.10
v/c Ratio	0.51	2.32	0.02	0.26	2.77	0.46	0.24	0.24	0.52
Control Delay (s/veh)	46.8	613.3	0.1	41.8	816.5	43.1	10.2	41.7	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.8	613.3	0.1	41.8	816.5	43.1	10.2	41.7	13.9
LOS	D	F	A	D	F	D	B	D	B
Approach Delay (s/veh)		586.0			804.0		28.5		19.0
Approach LOS		F			F		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 76.3	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.77	
Intersection Signal Delay (s/veh): 651.9	Intersection LOS: F
Intersection Capacity Utilization 151.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	2168	18	39	2342	20	88	2	69	34	8	141
Future Volume (veh/h)	90	2168	18	39	2342	20	88	2	69	34	8	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	96	2306	19	41	2491	21	94	2	68	36	9	126
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	967	816	70	901	8	123	6	210	64	11	156
Arrive On Green	0.07	0.51	0.51	0.04	0.48	0.48	0.07	0.14	0.14	0.04	0.10	0.10
Sat Flow, veh/h	1810	1900	1604	1810	1881	16	1810	46	1554	1810	108	1518
Grp Volume(v), veh/h	96	2306	19	41	0	2512	94	0	70	36	0	135
Grp Sat Flow(s),veh/h/ln	1810	1900	1604	1810	0	1897	1810	0	1600	1810	0	1627
Q Serve(g_s), s	3.8	36.9	0.4	1.6	0.0	34.7	3.7	0.0	2.9	1.4	0.0	5.9
Cycle Q Clear(g_c), s	3.8	36.9	0.4	1.6	0.0	34.7	3.7	0.0	2.9	1.4	0.0	5.9
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.97	1.00		0.93
Lane Grp Cap(c), veh/h	124	967	816	70	0	909	123	0	216	64	0	167
V/C Ratio(X)	0.77	2.38	0.02	0.58	0.00	2.76	0.77	0.00	0.32	0.56	0.00	0.81
Avail Cap(c_a), veh/h	242	967	816	242	0	909	627	0	554	252	0	227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.2	17.8	8.8	34.2	0.0	18.9	33.2	0.0	28.3	34.4	0.0	31.8
Incr Delay (d2), s/veh	3.8	626.3	0.0	2.8	0.0	796.7	3.7	0.0	0.3	2.8	0.0	10.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	180.7	0.1	0.7	0.0	213.2	1.7	0.0	1.0	0.6	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.0	644.1	8.8	37.1	0.0	815.6	36.9	0.0	28.7	37.2	0.0	42.1
LnGrp LOS	D	F	A	D		F	D		C	D		D
Approach Vol, veh/h		2421			2553			164			171	
Approach Delay, s/veh		615.0			803.1			33.4			41.1	
Approach LOS		F			F			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	42.2	9.8	12.3	10.3	40.0	7.5	14.7
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	3.6	38.9	5.7	7.9	5.8	36.7	3.4	4.9
Green Ext Time (p_c), s	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	669.0
HCM 7th LOS	F

Intersection	
Int Delay, s/veh	71114.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	226	1664	392	65	1620	27	630	68	106	30	45	167
Future Vol, veh/h	226	1664	392	65	1620	27	630	68	106	30	45	167
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	243	1789	422	70	1742	29	677	73	114	32	48	180

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1771	0	0	2211	0	0	4392	4397	2000	4208	4593	1756
Stage 1	-	-	-	-	-	-	2486	2486	-	1896	1896	-
Stage 2	-	-	-	-	-	-	1906	1911	-	2312	2697	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	356	-	-	241	-	-	~ 1	~ 2	~ 76	~ 1	~ 1	~ 107
Stage 1	-	-	-	-	-	-	~ 40	~ 59	-	91	119	-
Stage 2	-	-	-	-	-	-	~ 89	117	-	51	~ 46	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	356	-	-	241	-	-	~ 1	0	~ 76	~ 1	0	~ 107
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 1	0	-	~ 1	0	-
Stage 1	-	-	-	-	-	-	~ 40	~ 59	-	91	0	-
Stage 2	-	-	-	-	-	-	-	0	-	~ 6	~ 46	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	3.39	0.99	$ 440265.52	$ 18324.46
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1	~ 172	-	-	~ 3	-	-	7
HCM Lane V/C Ratio	961.631	0.682	-	-	0.291	-	-	39.3
HCM Control Delay (s/veh)	$ 440265.5	34.2	0	-	26	0	-	$ 18324.5
HCM Lane LOS	F	D	A	-	D	A	-	F
HCM 95th %tile Q(veh)	110.9	4.8	-	-	1.2	-	-	34.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	2	0	752	472	10
Future Vol, veh/h	19	2	0	752	472	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	2	0	817	513	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1336	518	524	0	-	0
Stage 1	518	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	171	561	1053	-	-	-
Stage 1	602	-	-	-	-	-
Stage 2	437	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	561	1053	-	-	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	602	-	-	-	-	-
Stage 2	437	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	17.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1053	-	320	-	-
HCM Lane V/C Ratio	-	-	0.071	-	-
HCM Control Delay (s/veh)	0	-	17.1	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	51	4	1	701	440	34
Future Vol, veh/h	51	4	1	701	440	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	55	4	1	762	478	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1261	497	515	0	-	0
Stage 1	497	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	190	577	1061	-	-	-
Stage 1	616	-	-	-	-	-
Stage 2	463	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	190	577	1061	-	-	-
Mov Cap-2 Maneuver	325	-	-	-	-	-
Stage 1	615	-	-	-	-	-
Stage 2	463	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	18.03	0.01	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1061	-	336	-	-
HCM Lane V/C Ratio	0.001	-	0.178	-	-
HCM Control Delay (s/veh)	8.4	-	18	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

APPENDIX 7.3: HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	045 Without Proje
				CALC JB	DATE 05/13/24
Jurisdiction: City of Menifee				CHK JB	DATE 05/13/24
Major Street: Sherman Road				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 2				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,198** vpd Minor Street Future ADT = **171** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN: XX RURAL:

CONDITION A - Minimum Vehicular Volume

Satisfied: Not Satisfied: **XX**

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **6,198**	1 **171**	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied: Not Satisfied: **XX**

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **6,198**	1 **171**	12,000	8,400	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied: Not Satisfied: **XX**

No one condition satisfied, but following conditions fulfilled 80% of more ….. **A** 7% **B** 14%

2 CONDITIONS 80% | 2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 7.4: HORIZON YEAR (2045) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	**2045 With Project**
				CALC JB	DATE 05/13/24
Jurisdiction: **City of Menifee**				CHK JB	DATE 05/13/24
Major Street: **Sherman Road**				Critical Approach Speed (Major)	40 mph
Minor Street: **Driveway 1**				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,696** vpd Minor Street Future ADT = **114** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **6,696**	*1* **114**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **6,696**	*1* **114**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 5% **B** 10%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	**2045 With Project**
				CALC JB	DATE 05/13/24
Jurisdiction: **City of Menifee**				CHK JB	DATE 05/13/24
Major Street: **Sherman Road**				Critical Approach Speed (Major)	40 mph
Minor Street: **Driveway 2**				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,326** vpd Minor Street Future ADT = **285** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
XX	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied **XX**				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **6,326** / *1* **285**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied **XX**				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **6,326** / *1* **285**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied **XX**	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. **A** 12% **B** 24%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

APPENDIX 7.5: HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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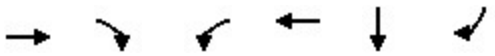

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1847	1254	251	1812	718	1197
v/c Ratio	1.80	1.10	1.39	0.72	1.98	3.05
Control Delay (s/veh)	385.9	73.1	243.3	11.8	479.9	947.4
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay (s/veh)	385.9	73.1	243.3	12.2	479.9	947.4
Queue Length 50th (ft)	~1780	~729	~215	332	~717	~1309
Queue Length 95th (ft)	#2042	#987	#368	414	#939	#1563
Internal Link Dist (ft)	624			681	1327	
Turn Bay Length (ft)			275			240
Base Capacity (vph)	1026	1140	180	2490	361	392
Starvation Cap Reductn	0	0	0	255	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.80	1.10	1.39	0.81	1.99	3.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	943	1650	1593	1043	523
v/c Ratio	2.91	1.24	1.82	3.03	1.38
Control Delay (s/veh)	886.4	133.9	399.9	939.7	218.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	886.4	134.0	399.9	939.7	218.3
Queue Length 50th (ft)	~1041	~1314	~1551	~1162	~401
Queue Length 95th (ft)	#1279	#1576	#1816	#1406	#607
Internal Link Dist (ft)		681	457	1327	
Turn Bay Length (ft)	245				270
Base Capacity (vph)	324	1330	871	344	377
Starvation Cap Reductn	0	31	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.91	1.27	1.83	3.03	1.39

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1998	1150	440	1969	835	1090
v/c Ratio	1.89	1.02	2.71	0.78	2.37	2.83
Control Delay (s/veh)	427.7	47.0	809.5	13.1	650.9	852.0
Queue Delay	0.0	0.0	0.0	0.7	0.0	0.0
Total Delay (s/veh)	427.7	47.0	809.5	13.9	650.9	852.0
Queue Length 50th (ft)	~1962	~627	~479	388	~879	~1168
Queue Length 95th (ft)	#2225	#881	#668	485	#1110	#1419
Internal Link Dist (ft)	624			681	1327	
Turn Bay Length (ft)			275			240
Base Capacity (vph)	1054	1124	162	2508	351	384
Starvation Cap Reductn	0	0	0	238	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.90	1.02	2.72	0.87	2.38	2.84

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	1046	1789	1998	1166	568
v/c Ratio	3.63	1.34	2.20	3.40	1.50
Control Delay (s/veh)	Error	180.1	566.9	Error	268.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	Error	180.1	566.9	Error	268.4
Queue Length 50th (ft)	~1203	~1500	~2076	~1327	~462
Queue Length 95th (ft)	#1447	#1761	#2344	#1576	#673
Internal Link Dist (ft)		681	457	1327	
Turn Bay Length (ft)	245				270
Base Capacity (vph)	288	1330	905	342	377
Starvation Cap Reductn	0	14	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	3.63	1.36	2.21	3.41	1.51

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 7.6: HORIZON YEAR (2045) WITH PROJECT CONDITIONS

OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1851	1254	255	1813	735	1197
v/c Ratio	1.80	1.10	1.41	0.72	2.03	3.05
Control Delay (s/veh)	387.6	73.1	252.0	11.8	500.4	947.4
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay (s/veh)	387.6	73.1	252.0	12.3	500.4	947.4
Queue Length 50th (ft)	~1785	~729	~220	333	~740	~1309
Queue Length 95th (ft)	#2048	#988	#376	414	#964	#1563
Internal Link Dist (ft)	624			681	1327	
Turn Bay Length (ft)			275			240
Base Capacity (vph)	1026	1140	180	2490	361	392
Starvation Cap Reductn	0	0	0	255	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.80	1.10	1.42	0.81	2.04	3.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	943	1671	1604	1043	535
v/c Ratio	2.91	1.25	1.84	3.03	1.41
Control Delay (s/veh)	886.4	140.9	406.4	939.7	231.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	886.4	140.9	406.4	939.7	231.5
Queue Length 50th (ft)	~1041	~1342	~1566	~1162	~417
Queue Length 95th (ft)	#1279	#1604	#1832	#1406	#624
Internal Link Dist (ft)		681	457	1327	
Turn Bay Length (ft)	245				270
Base Capacity (vph)	324	1330	870	344	377
Starvation Cap Reductn	0	28	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.91	1.28	1.84	3.03	1.42

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1999	1150	452	1972	845	1090
v/c Ratio	1.89	1.02	2.79	0.78	2.40	2.83
Control Delay (s/veh)	428.1	47.0	842.1	13.2	663.4	852.0
Queue Delay	0.0	0.0	0.0	0.7	0.0	0.0
Total Delay (s/veh)	428.1	47.0	842.1	13.9	663.4	852.0
Queue Length 50th (ft)	~1963	~627	~495	390	~893	~1168
Queue Length 95th (ft)	#2226	#881	#687	487	#1125	#1419
Internal Link Dist (ft)	624			681	1327	
Turn Bay Length (ft)			275			240
Base Capacity (vph)	1054	1124	162	2508	351	384
Starvation Cap Reductn	0	0	0	238	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.90	1.02	2.79	0.87	2.41	2.84

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	1046	1800	2030	1166	576
v/c Ratio	3.63	1.35	2.24	3.40	1.52
Control Delay (s/veh)	Error	183.8	582.6	Error	277.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	Error	183.8	582.6	Error	277.5
Queue Length 50th (ft)	~1203	~1514	~2120	~1327	~473
Queue Length 95th (ft)	#1447	#1777	#2389	#1576	#686
Internal Link Dist (ft)		681	457	1327	
Turn Bay Length (ft)	245				270
Base Capacity (vph)	288	1330	905	342	377
Starvation Cap Reductn	0	12	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	3.63	1.37	2.24	3.41	1.53

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 7.7: HORIZON YEAR (2045) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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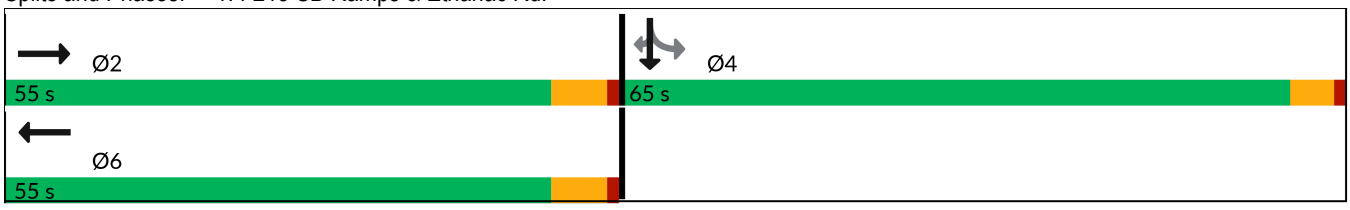
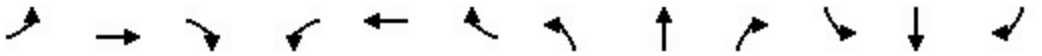
Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1721	1166	1686	237	684	0	1113
Future Volume (vph)	1721	1166	1686	237	684	0	1113
Turn Type	NA	Free	NA	Free	Perm	NA	Perm
Protected Phases	2		6			4	
Permitted Phases		Free		Free	4		4
Detector Phase	2		6		4	4	4
Switch Phase							
Minimum Initial (s)	5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	23.4		24.5		24.5	24.5	24.5
Total Split (s)	55.0		55.0		65.0	65.0	65.0
Total Split (%)	45.8%		45.8%		54.2%	54.2%	54.2%
Yellow Time (s)	5.0		5.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0		6.0		5.0	5.0	5.0
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None		None		None	None	None
Act Effct Green (s)	47.5	115.8	47.5	115.8	57.3	57.3	57.3
Actuated g/C Ratio	0.41	1.00	0.41	1.00	0.49	0.49	0.49
v/c Ratio	0.87	0.77	0.85	0.16	0.42	0.41	0.91
Control Delay (s/veh)	37.2	3.7	36.2	0.2	20.7	20.4	38.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.2	3.7	36.2	0.2	20.7	20.4	38.6
LOS	D	A	D	A	C	C	D
Approach Delay (s/veh)	23.7		31.8			31.7	
Approach LOS	C		C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115.8	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay (s/veh): 28.2	Intersection LOS: C
Intersection Capacity Utilization 80.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰		↱↱
Traffic Volume (veh/h)	0	1721	1166	0	1686	237	0	0	0	684	0	1113
Future Volume (veh/h)	0	1721	1166	0	1686	237	0	0	0	684	0	1113
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1851	0	0	1813	0				735	0	1044
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2435		0	2435					1471	0	1309
Arrive On Green	0.00	0.47	0.00	0.00	0.47	0.00				0.41	0.00	0.41
Sat Flow, veh/h	0	5358	1610	0	5358	1610				3619	0	3220
Grp Volume(v), veh/h	0	1851	0	0	1813	0				735	0	1044
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610				1810	0	1610
Q Serve(g_s), s	0.0	26.1	0.0	0.0	25.2	0.0				13.4	0.0	25.2
Cycle Q Clear(g_c), s	0.0	26.1	0.0	0.0	25.2	0.0				13.4	0.0	25.2
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2435		0	2435					1471	0	1309
V/C Ratio(X)	0.00	0.76		0.00	0.74					0.50	0.00	0.80
Avail Cap(c_a), veh/h	0	2870		0	2870					2452	0	2182
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.4	0.0	0.0	19.2	0.0				19.6	0.0	23.1
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.0	0.9	0.0				0.3	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.5	0.0	0.0	9.2	0.0				4.9	0.0	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	20.4	0.0	0.0	20.1	0.0				19.8	0.0	24.2
LnGrp LOS		C			C					B		C
Approach Vol, veh/h		1851			1813						1779	
Approach Delay, s/veh		20.4			20.1						22.4	
Approach LOS		C			C						C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	47.6	41.0	47.6
Change Period (Y+Rc), s	6.0	5.0	6.0
Max Green Setting (Gmax), s	49.0	60.0	49.0
Max Q Clear Time (g_c+I1), s	28.1	27.2	27.2
Green Ext Time (p_c), s	13.5	8.8	13.6

Intersection Summary	
HCM 7th Control Delay, s/veh	21.0
HCM 7th LOS	C

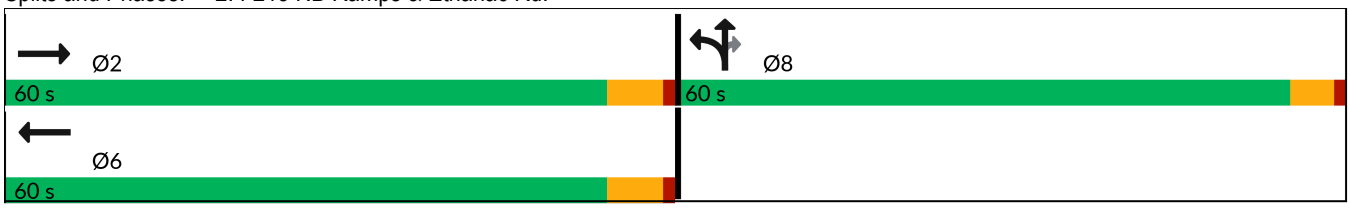
Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	1537	868	966	510	957	3	492
Future Volume (vph)	1537	868	966	510	957	3	492
Turn Type	NA	Free	NA	Free	Split	NA	Perm
Protected Phases	2		6		8	8	
Permitted Phases		Free		Free			8
Detector Phase	2		6		8	8	8
Switch Phase							
Minimum Initial (s)	5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	24.5		23.4		23.4	23.4	23.4
Total Split (s)	60.0		60.0		60.0	60.0	60.0
Total Split (%)	50.0%		50.0%		50.0%	50.0%	50.0%
Yellow Time (s)	5.0		5.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0		6.0		5.0	5.0	5.0
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None		None		None	None	None
Act Effct Green (s)	40.9	90.0	40.9	90.0	37.3	37.3	37.3
Actuated g/C Ratio	0.45	1.00	0.45	1.00	0.41	0.41	0.41
v/c Ratio	0.69	0.58	0.44	0.34	0.70	0.68	0.44
Control Delay (s/veh)	22.3	1.6	18.3	0.6	28.4	27.4	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.3	1.6	18.3	0.6	28.4	27.4	19.4
LOS	C	A	B	A	C	C	B
Approach Delay (s/veh)	14.9		12.1			25.0	
Approach LOS	B		B			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 90	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay (s/veh): 16.9	Intersection LOS: B
Intersection Capacity Utilization 65.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	↰	↱↱			
Traffic Volume (veh/h)	0	1537	868	0	966	510	957	3	492	0	0	0
Future Volume (veh/h)	0	1537	868	0	966	510	957	3	492	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1635	0	0	1028	0	1020	0	459			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	2493		0	2493		1328	0	1182			
Arrive On Green	0.00	0.48	0.00	0.00	0.48	0.00	0.37	0.00	0.37			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	3619	0	3220			
Grp Volume(v), veh/h	0	1635	0	0	1028	0	1020	0	459			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	17.2	0.0	0.0	9.3	0.0	17.9	0.0	7.6			
Cycle Q Clear(g_c), s	0.0	17.2	0.0	0.0	9.3	0.0	17.9	0.0	7.6			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2493		0	2493		1328	0	1182			
V/C Ratio(X)	0.00	0.66		0.00	0.41		0.77	0.00	0.39			
Avail Cap(c_a), veh/h	0	3883		0	3883		2759	0	2455			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	14.2	0.0	0.0	12.1	0.0	20.1	0.0	16.9			
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.1	0.0	1.0	0.0	0.2			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	5.7	0.0	0.0	3.0	0.0	6.3	0.0	2.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.5	0.0	0.0	12.2	0.0	21.1	0.0	17.1			
LnGrp LOS		B			B		C		B			
Approach Vol, veh/h		1635			1028			1479				
Approach Delay, s/veh		14.5			12.2			19.8				
Approach LOS		B			B			B				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		40.7				40.7		31.5				
Change Period (Y+Rc), s		6.0				6.0		5.0				
Max Green Setting (Gmax), s		54.0				54.0		55.0				
Max Q Clear Time (g_c+I1), s		19.2				11.3		19.9				
Green Ext Time (p_c), s		15.4				8.4		6.6				

Intersection Summary												
HCM 7th Control Delay, s/veh			15.9									
HCM 7th LOS			B									

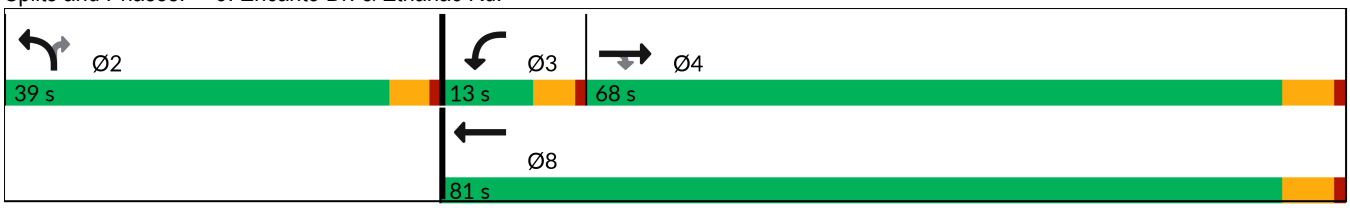
Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1920	109	41	1206	271	48
Future Volume (vph)	1920	109	41	1206	271	48
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	27.8	27.8	9.6	27.8	26.6	26.6
Total Split (s)	68.0	68.0	13.0	81.0	39.0	39.0
Total Split (%)	56.7%	56.7%	10.8%	67.5%	32.5%	32.5%
Yellow Time (s)	4.8	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	54.5	54.5	7.1	63.2	21.0	21.0
Actuated g/C Ratio	0.57	0.57	0.07	0.66	0.22	0.22
v/c Ratio	0.70	0.12	0.33	0.38	0.74	0.13
Control Delay (s/veh)	17.5	4.7	56.0	7.7	49.4	10.0
Queue Delay	0.3	0.0	0.0	0.1	0.0	0.0
Total Delay (s/veh)	17.8	4.7	56.0	7.9	49.4	10.0
LOS	B	A	E	A	D	A
Approach Delay (s/veh)	17.2			9.5	43.5	
Approach LOS	B			A	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 95.4	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay (s/veh): 16.8	Intersection LOS: B
Intersection Capacity Utilization 60.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Encanto Dr. & Ethanac Rd.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1920	109	41	1206	271	48
Future Volume (veh/h)	1920	109	41	1206	271	48
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2087	64	45	1311	295	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	3047	946	71	3546	340	302
Arrive On Green	0.59	0.59	0.04	0.68	0.19	0.19
Sat Flow, veh/h	5358	1610	1810	5358	1810	1610
Grp Volume(v), veh/h	2087	64	45	1311	295	30
Grp Sat Flow(s),veh/h/ln	1729	1610	1810	1729	1810	1610
Q Serve(g_s), s	22.5	1.4	2.0	8.6	12.8	1.2
Cycle Q Clear(g_c), s	22.5	1.4	2.0	8.6	12.8	1.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3047	946	71	3546	340	302
V/C Ratio(X)	0.68	0.07	0.63	0.37	0.87	0.10
Avail Cap(c_a), veh/h	3991	1239	188	4825	770	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.5	7.2	38.3	5.4	31.9	27.2
Incr Delay (d2), s/veh	0.3	0.0	3.4	0.1	2.7	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	0.4	0.9	2.2	5.3	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	11.8	7.2	41.7	5.5	34.6	27.2
LnGrp LOS	B	A	D	A	C	C
Approach Vol, veh/h	2151			1356	325	
Approach Delay, s/veh	11.7			6.7	33.9	
Approach LOS	B			A	C	

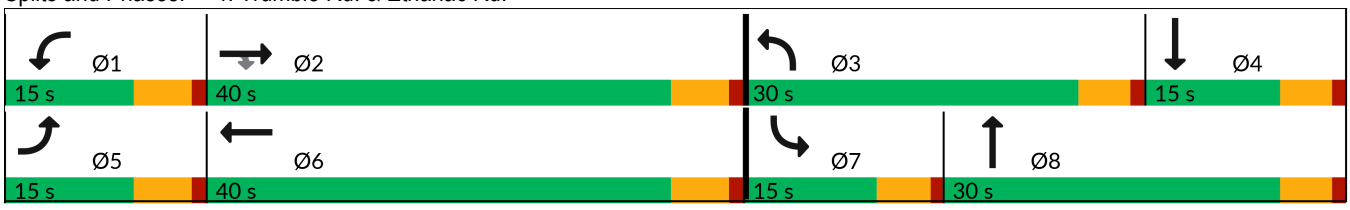
Timer - Assigned Phs	2	3	4		8
Phs Duration (G+Y+Rc), s	19.8	7.8	53.3		61.1
Change Period (Y+Rc), s	4.6	4.6	5.8		5.8
Max Green Setting (Gmax), s	34.4	8.4	62.2		75.2
Max Q Clear Time (g_c+I1), s	14.8	4.0	24.5		10.6
Green Ext Time (p_c), s	0.4	0.0	23.0		12.6

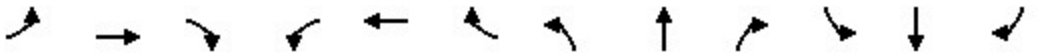
Intersection Summary	
HCM 7th Control Delay, s/veh	11.8
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	135	2435	7	54	1099	76	9	24	12
Future Volume (vph)	135	2435	7	54	1099	76	9	24	12
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	9.5	36.6	36.6	7.1	28.5	8.2	11.8	6.0	8.0
Actuated g/C Ratio	0.13	0.50	0.50	0.10	0.39	0.11	0.16	0.08	0.11
v/c Ratio	0.63	1.03	0.01	0.34	0.62	0.42	0.20	0.17	0.57
Control Delay (s/veh)	48.6	48.7	0.0	41.3	20.6	40.9	12.6	40.3	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.6	48.7	0.0	41.3	20.6	40.9	12.6	40.3	14.0
LOS	D	D	A	D	C	D	B	D	B
Approach Delay (s/veh)		48.6			21.6		28.9		17.1
Approach LOS		D			C		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 72.8	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay (s/veh): 38.6	Intersection LOS: D
Intersection Capacity Utilization 83.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	2435	7	54	1099	36	76	9	47	24	12	163
Future Volume (veh/h)	135	2435	7	54	1099	36	76	9	47	24	12	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	148	2676	8	59	1208	40	84	10	50	26	13	172
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	2471	767	87	2175	72	110	46	231	51	15	204
Arrive On Green	0.10	0.48	0.48	0.05	0.42	0.42	0.06	0.17	0.17	0.03	0.14	0.14
Sat Flow, veh/h	1810	5187	1610	1810	5157	171	1810	275	1377	1810	114	1513
Grp Volume(v), veh/h	148	2676	8	59	810	438	84	0	60	26	0	185
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1869	1810	0	1652	1810	0	1628
Q Serve(g_s), s	5.8	34.7	0.2	2.3	12.9	12.9	3.3	0.0	2.3	1.0	0.0	8.1
Cycle Q Clear(g_c), s	5.8	34.7	0.2	2.3	12.9	12.9	3.3	0.0	2.3	1.0	0.0	8.1
Prop In Lane	1.00		1.00	1.00		0.09	1.00		0.83	1.00		0.93
Lane Grp Cap(c), veh/h	185	2471	767	87	1458	788	110	0	277	51	0	220
V/C Ratio(X)	0.80	1.08	0.01	0.68	0.56	0.56	0.76	0.00	0.22	0.51	0.00	0.84
Avail Cap(c_a), veh/h	241	2471	767	241	1647	890	623	0	569	251	0	226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.0	19.1	10.0	34.1	15.9	15.9	33.7	0.0	26.2	34.9	0.0	30.7
Incr Delay (d2), s/veh	10.1	45.2	0.0	3.5	0.1	0.2	4.1	0.0	0.1	2.9	0.0	22.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	21.4	0.1	1.0	4.3	4.7	1.5	0.0	0.9	0.5	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.0	64.3	10.0	37.6	16.0	16.1	37.8	0.0	26.3	37.8	0.0	52.9
LnGrp LOS	D	F	B	D	B	B	D		C	D		D
Approach Vol, veh/h		2832			1307			144			211	
Approach Delay, s/veh		63.0			17.0			33.0			51.0	
Approach LOS		E			B			C			D	

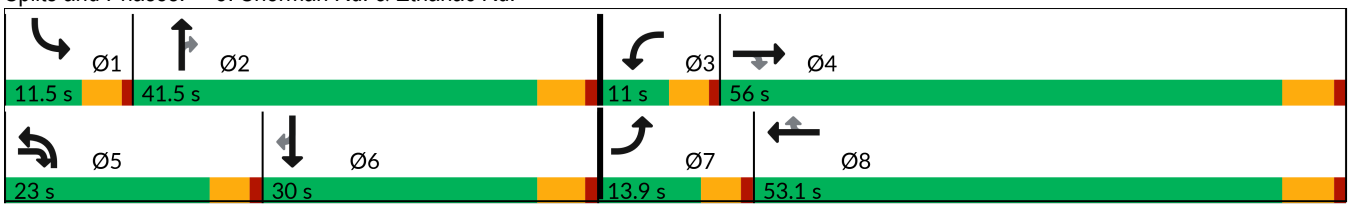
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	40.0	9.3	14.7	12.8	36.0	6.9	17.1
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	4.3	36.7	5.3	10.1	7.8	14.9	3.0	4.3
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	5.0	0.0	0.1

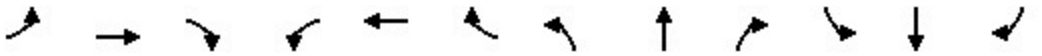
Intersection Summary	
HCM 7th Control Delay, s/veh	48.1
HCM 7th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	1734	607	96	887	29	177	23	25	37	64	208
Future Volume (vph)	124	1734	607	96	887	29	177	23	25	37	64	208
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	28.2	9.6	9.6	28.2	28.2	9.6	27.4	27.4	9.6	27.4	27.4
Total Split (s)	13.9	56.0	23.0	11.0	53.1	53.1	23.0	41.5	41.5	11.5	30.0	30.0
Total Split (%)	11.6%	46.7%	19.2%	9.2%	44.3%	44.3%	19.2%	34.6%	34.6%	9.6%	25.0%	25.0%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	7.9	45.6	56.8	6.2	43.9	43.9	10.0	15.3	15.3	6.2	12.6	12.6
Actuated g/C Ratio	0.08	0.48	0.60	0.07	0.46	0.46	0.11	0.16	0.16	0.07	0.13	0.13
v/c Ratio	0.46	0.76	0.56	0.45	0.40	0.03	0.52	0.08	0.07	0.35	0.27	0.62
Control Delay (s/veh)	49.7	23.6	3.4	52.9	18.3	0.1	47.4	34.5	0.4	55.2	42.1	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.7	23.6	3.4	52.9	18.3	0.1	47.4	34.5	0.4	55.2	42.1	20.2
LOS	D	C	A	D	B	A	D	C	A	E	D	C
Approach Delay (s/veh)		20.0			21.1			41.0			29.0	
Approach LOS		B			C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 95.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 22.1	Intersection LOS: C
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Sherman Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	1734	607	96	887	29	177	23	25	37	64	208
Future Volume (veh/h)	124	1734	607	96	887	29	177	23	25	37	64	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	136	1905	502	105	975	21	195	25	16	41	70	174
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	208	2591	915	185	2557	794	278	340	288	65	257	218
Arrive On Green	0.06	0.50	0.50	0.05	0.49	0.49	0.08	0.18	0.18	0.04	0.14	0.14
Sat Flow, veh/h	3510	5187	1577	3510	5187	1610	3510	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	136	1905	502	105	975	21	195	25	16	41	70	174
Grp Sat Flow(s),veh/h/ln	1755	1729	1577	1755	1729	1610	1755	1900	1610	1810	1900	1610
Q Serve(g_s), s	3.3	25.4	17.2	2.6	10.3	0.6	4.7	1.0	0.7	2.0	2.9	9.2
Cycle Q Clear(g_c), s	3.3	25.4	17.2	2.6	10.3	0.6	4.7	1.0	0.7	2.0	2.9	9.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	2591	915	185	2557	794	278	340	288	65	257	218
V/C Ratio(X)	0.65	0.74	0.55	0.57	0.38	0.03	0.70	0.07	0.06	0.63	0.27	0.80
Avail Cap(c_a), veh/h	373	2974	1032	257	2803	870	738	784	664	143	534	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	17.3	11.4	40.5	13.9	11.4	39.3	29.9	29.8	41.6	34.0	36.7
Incr Delay (d2), s/veh	1.3	0.8	0.5	1.0	0.1	0.0	1.2	0.1	0.1	3.7	0.6	6.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	8.8	5.0	1.1	3.5	0.2	2.0	0.4	0.3	0.9	1.3	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.6	18.2	11.9	41.5	14.0	11.4	40.5	30.0	29.9	45.3	34.5	43.2
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	D
Approach Vol, veh/h		2543			1101			236			285	
Approach Delay, s/veh		18.2			16.5			38.7			41.4	
Approach LOS		B			B			D			D	

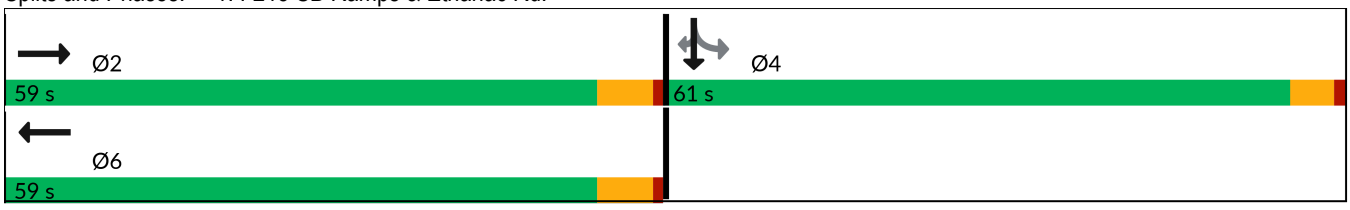
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	21.0	9.2	49.5	11.5	17.3	9.8	49.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	6.9	36.1	6.4	50.2	18.4	24.6	9.3	47.3
Max Q Clear Time (g_c+I1), s	4.0	3.0	4.6	27.4	6.7	11.2	5.3	12.3
Green Ext Time (p_c), s	0.0	0.1	0.0	16.3	0.3	0.7	0.1	7.4

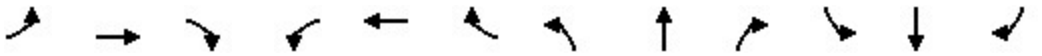
Intersection Summary	
HCM 7th Control Delay, s/veh	20.5
HCM 7th LOS	C

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1959	1127	1933	443	828	0	1068
Future Volume (vph)	1959	1127	1933	443	828	0	1068
Turn Type	NA	Free	NA	Free	Perm	NA	Perm
Protected Phases	2		6			4	
Permitted Phases		Free		Free	4		4
Detector Phase	2		6		4	4	4
Switch Phase							
Minimum Initial (s)	5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	23.4		24.5		24.5	24.5	24.5
Total Split (s)	59.0		59.0		61.0	61.0	61.0
Total Split (%)	49.2%		49.2%		50.8%	50.8%	50.8%
Yellow Time (s)	5.0		5.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0		6.0		5.0	5.0	5.0
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None		None		None	None	None
Act Effct Green (s)	51.6	116.0	51.6	116.0	53.4	53.4	53.4
Actuated g/C Ratio	0.44	1.00	0.44	1.00	0.46	0.46	0.46
v/c Ratio	0.86	0.71	0.85	0.28	0.52	0.50	0.89
Control Delay (s/veh)	34.5	2.7	33.8	0.4	25.2	24.8	38.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.5	2.7	33.8	0.4	25.2	24.8	38.9
LOS	C	A	C	A	C	C	D
Approach Delay (s/veh)	22.9		27.6			32.9	
Approach LOS	C		C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 116	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 27.0	Intersection LOS: C
Intersection Capacity Utilization 83.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: I-215 SB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰	↲	↱↱
Traffic Volume (veh/h)	0	1959	1127	0	1933	443	0	0	0	828	0	1068
Future Volume (veh/h)	0	1959	1127	0	1933	443	0	0	0	828	0	1068
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1999	0	0	1972	0				845	0	927
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2627		0	2627					1343	0	1195
Arrive On Green	0.00	0.51	0.00	0.00	0.51	0.00				0.37	0.00	0.37
Sat Flow, veh/h	0	5358	1610	0	5358	1610				3619	0	3220
Grp Volume(v), veh/h	0	1999	0	0	1972	0				845	0	927
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610				1810	0	1610
Q Serve(g_s), s	0.0	27.8	0.0	0.0	27.2	0.0				17.2	0.0	22.8
Cycle Q Clear(g_c), s	0.0	27.8	0.0	0.0	27.2	0.0				17.2	0.0	22.8
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2627		0	2627					1343	0	1195
V/C Ratio(X)	0.00	0.76		0.00	0.75					0.63	0.00	0.78
Avail Cap(c_a), veh/h	0	3061		0	3061					2257	0	2008
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.8	0.0	0.0	17.7	0.0				23.2	0.0	24.9
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.0	0.9	0.0				0.5	0.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.0	0.0	0.0	9.7	0.0				6.5	0.0	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	18.8	0.0	0.0	18.6	0.0				23.7	0.0	26.1
LnGrp LOS		B			B					C		C
Approach Vol, veh/h		1999			1972						1772	
Approach Delay, s/veh		18.8			18.6						24.9	
Approach LOS		B			B						C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	51.5	38.3	51.5
Change Period (Y+Rc), s	6.0	5.0	6.0
Max Green Setting (Gmax), s	53.0	56.0	53.0
Max Q Clear Time (g_c+I1), s	29.8	24.8	29.2
Green Ext Time (p_c), s	15.7	8.5	15.7

Intersection Summary	
HCM 7th Control Delay, s/veh	20.6
HCM 7th LOS	C

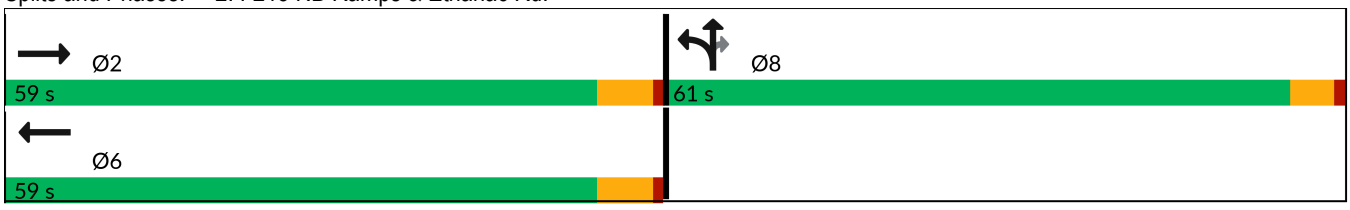
Notes

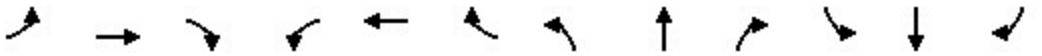
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	1764	1025	1234	756	1143	0	564
Future Volume (vph)	1764	1025	1234	756	1143	0	564
Turn Type	NA	Free	NA	Free	Split	NA	Perm
Protected Phases	2		6		8	8	
Permitted Phases		Free		Free			8
Detector Phase	2		6		8	8	8
Switch Phase							
Minimum Initial (s)	5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	24.5		23.4		23.4	23.4	23.4
Total Split (s)	59.0		59.0		61.0	61.0	61.0
Total Split (%)	49.2%		49.2%		50.8%	50.8%	50.8%
Yellow Time (s)	5.0		5.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0		6.0		5.0	5.0	5.0
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None		None		None	None	None
Act Effct Green (s)	46.7	102.7	46.7	102.7	44.5	44.5	44.5
Actuated g/C Ratio	0.45	1.00	0.45	1.00	0.43	0.43	0.43
v/c Ratio	0.76	0.66	0.53	0.47	0.76	0.74	0.46
Control Delay (s/veh)	26.9	2.2	22.0	1.0	32.9	31.5	21.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.9	2.2	22.0	1.0	32.9	31.5	21.0
LOS	C	A	C	A	C	C	C
Approach Delay (s/veh)	17.9		14.1			28.6	
Approach LOS	B		B			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 102.7	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 19.5	Intersection LOS: B
Intersection Capacity Utilization 74.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: I-215 NB Ramps & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	↰	↱↱			
Traffic Volume (veh/h)	0	1764	1025	0	1234	756	1143	0	564	0	0	0
Future Volume (veh/h)	0	1764	1025	0	1234	756	1143	0	564	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1800	0	0	1259	0	1166	0	503			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	2473		0	2473		1436	0	1278			
Arrive On Green	0.00	0.48	0.00	0.00	0.48	0.00	0.40	0.00	0.40			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	3619	0	3220			
Grp Volume(v), veh/h	0	1800	0	0	1259	0	1166	0	503			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	24.2	0.0	0.0	14.6	0.0	25.0	0.0	9.7			
Cycle Q Clear(g_c), s	0.0	24.2	0.0	0.0	14.6	0.0	25.0	0.0	9.7			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2473		0	2473		1436	0	1278			
V/C Ratio(X)	0.00	0.73		0.00	0.51		0.81	0.00	0.39			
Avail Cap(c_a), veh/h	0	3156		0	3156		2326	0	2070			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	18.3	0.0	0.0	15.7	0.0	23.4	0.0	18.8			
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.2	0.0	1.2	0.0	0.2			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	8.7	0.0	0.0	5.2	0.0	9.3	0.0	3.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	18.9	0.0	0.0	15.9	0.0	24.5	0.0	19.0			
LnGrp LOS		B			B		C		B			
Approach Vol, veh/h		1800			1259			1669				
Approach Delay, s/veh		18.9			15.9			22.9				
Approach LOS		B			B			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		47.5				47.5		39.6				
Change Period (Y+Rc), s		6.0				6.0		5.0				
Max Green Setting (Gmax), s		53.0				53.0		56.0				
Max Q Clear Time (g_c+I1), s		26.2				16.6		27.0				
Green Ext Time (p_c), s		15.3				10.8		7.6				

Intersection Summary	
HCM 7th Control Delay, s/veh	19.5
HCM 7th LOS	B

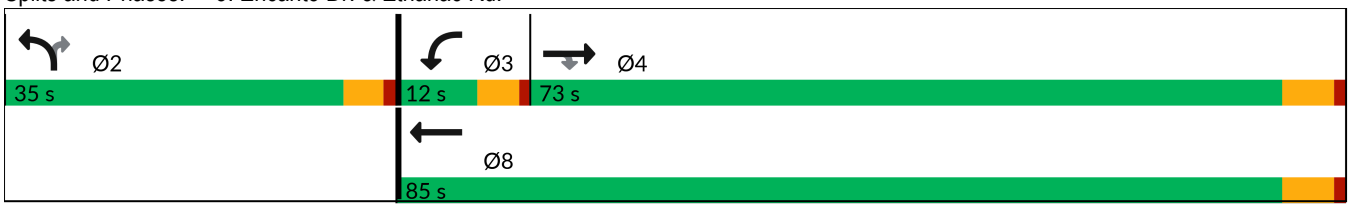
Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2052	276	26	1749	240	62
Future Volume (vph)	2052	276	26	1749	240	62
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	27.8	27.8	9.6	27.8	26.6	26.6
Total Split (s)	73.0	73.0	12.0	85.0	35.0	35.0
Total Split (%)	60.8%	60.8%	10.0%	70.8%	29.2%	29.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	57.4	57.4	6.3	63.0	18.0	18.0
Actuated g/C Ratio	0.62	0.62	0.07	0.68	0.20	0.20
v/c Ratio	0.64	0.25	0.21	0.50	0.69	0.17
Control Delay (s/veh)	13.5	3.2	53.9	7.6	49.2	10.5
Queue Delay	0.2	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	13.7	3.2	53.9	7.8	49.2	10.5
LOS	B	A	D	A	D	B
Approach Delay (s/veh)	12.5			8.5	41.3	
Approach LOS	B			A	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 92.3	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay (s/veh): 12.9	Intersection LOS: B
Intersection Capacity Utilization 61.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Encanto Dr. & Ethanac Rd.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2052	276	26	1749	240	62
Future Volume (veh/h)	2052	276	26	1749	240	62
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2094	180	27	1785	245	43
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	3216	998	51	3666	291	259
Arrive On Green	0.62	0.62	0.03	0.71	0.16	0.16
Sat Flow, veh/h	5358	1610	1810	5358	1810	1610
Grp Volume(v), veh/h	2094	180	27	1785	245	43
Grp Sat Flow(s),veh/h/ln	1729	1610	1810	1729	1810	1610
Q Serve(g_s), s	20.2	3.8	1.2	12.1	10.3	1.8
Cycle Q Clear(g_c), s	20.2	3.8	1.2	12.1	10.3	1.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3216	998	51	3666	291	259
V/C Ratio(X)	0.65	0.18	0.53	0.49	0.84	0.17
Avail Cap(c_a), veh/h	4436	1377	170	5228	700	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.5	6.4	37.7	5.1	32.0	28.4
Incr Delay (d2), s/veh	0.2	0.1	3.1	0.1	2.5	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	1.0	0.5	2.8	4.3	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	9.7	6.5	40.7	5.3	34.5	28.5
LnGrp LOS	A	A	D	A	C	C
Approach Vol, veh/h	2274			1812	288	
Approach Delay, s/veh	9.5			5.8	33.6	
Approach LOS	A			A	C	

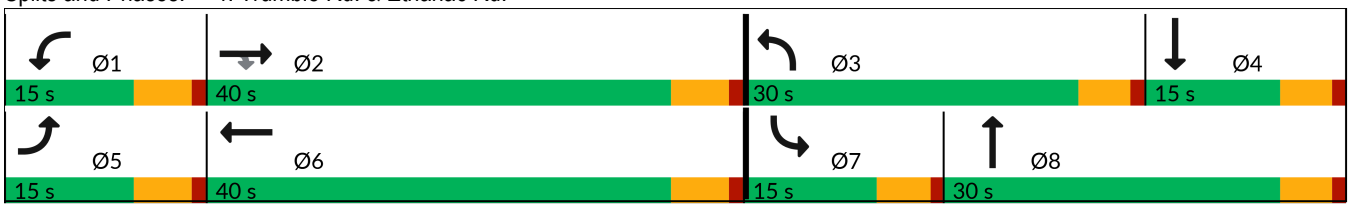
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		17.2	6.8	54.5		61.3
Change Period (Y+Rc), s		4.6	4.6	5.8		5.8
Max Green Setting (Gmax), s		30.4	7.4	67.2		79.2
Max Q Clear Time (g_c+I1), s		12.3	3.2	22.2		14.1
Green Ext Time (p_c), s		0.3	0.0	26.5		21.9

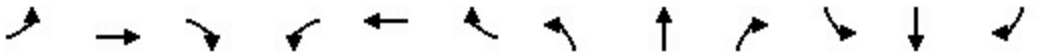
Intersection Summary	
HCM 7th Control Delay, s/veh	9.5
HCM 7th LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	90	2168	18	39	2342	88	2	34	8
Future Volume (vph)	90	2168	18	39	2342	88	2	34	8
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.3	35.3	35.3	10.3	27.8	9.9	29.9	9.9	10.4
Total Split (s)	15.0	40.0	40.0	15.0	40.0	30.0	30.0	15.0	15.0
Total Split (%)	15.0%	40.0%	40.0%	15.0%	40.0%	30.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.9
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	4.9	4.9	4.9	4.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	8.0	40.0	40.0	6.6	36.5	8.6	12.2	6.4	8.0
Actuated g/C Ratio	0.10	0.52	0.52	0.09	0.48	0.11	0.16	0.08	0.10
v/c Ratio	0.51	0.85	0.02	0.26	1.01	0.46	0.24	0.24	0.52
Control Delay (s/veh)	46.8	24.2	0.1	41.8	46.9	43.1	10.2	41.7	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.8	24.2	0.1	41.8	46.9	43.1	10.2	41.7	13.9
LOS	D	C	A	D	D	D	B	D	B
Approach Delay (s/veh)		24.9			46.8		28.5		19.0
Approach LOS		C			D		C		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 76.3	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay (s/veh): 35.3	Intersection LOS: D
Intersection Capacity Utilization 81.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: Trumble Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	2168	18	39	2342	20	88	2	69	34	8	141
Future Volume (veh/h)	90	2168	18	39	2342	20	88	2	69	34	8	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	96	2306	19	41	2491	21	94	2	68	36	9	126
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	2640	816	70	2542	21	123	6	210	64	11	156
Arrive On Green	0.07	0.51	0.51	0.04	0.48	0.48	0.07	0.14	0.14	0.04	0.10	0.10
Sat Flow, veh/h	1810	5187	1604	1810	5305	45	1810	46	1554	1810	108	1518
Grp Volume(v), veh/h	96	2306	19	41	1622	890	94	0	70	36	0	135
Grp Sat Flow(s),veh/h/ln	1810	1729	1604	1810	1729	1892	1810	0	1600	1810	0	1627
Q Serve(g_s), s	3.8	28.5	0.4	1.6	33.3	33.5	3.7	0.0	2.9	1.4	0.0	5.9
Cycle Q Clear(g_c), s	3.8	28.5	0.4	1.6	33.3	33.5	3.7	0.0	2.9	1.4	0.0	5.9
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.97	1.00		0.93
Lane Grp Cap(c), veh/h	124	2640	816	70	1657	906	123	0	216	64	0	167
V/C Ratio(X)	0.77	0.87	0.02	0.58	0.98	0.98	0.77	0.00	0.32	0.56	0.00	0.81
Avail Cap(c_a), veh/h	242	2640	816	242	1657	906	627	0	554	252	0	227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.2	15.7	8.8	34.2	18.5	18.5	33.2	0.0	28.3	34.4	0.0	31.8
Incr Delay (d2), s/veh	3.8	3.4	0.0	2.8	17.3	25.2	3.7	0.0	0.3	2.8	0.0	10.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	9.6	0.1	0.7	14.5	18.0	1.7	0.0	1.0	0.6	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.0	19.1	8.8	37.1	35.8	43.8	36.9	0.0	28.7	37.2	0.0	42.1
LnGrp LOS	D	B	A	D	D	D	D		C	D		D
Approach Vol, veh/h		2421			2553			164			171	
Approach Delay, s/veh		19.8			38.6			33.4			41.1	
Approach LOS		B			D			C			D	

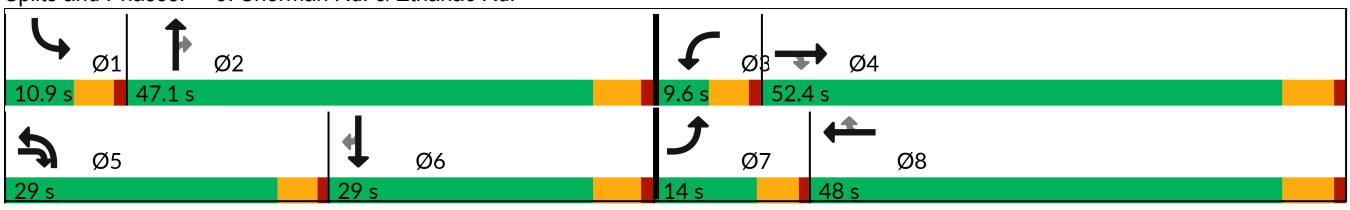
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	42.2	9.8	12.3	10.3	40.0	7.5	14.7
Change Period (Y+Rc), s	5.3	5.3	4.9	4.9	5.3	5.3	4.9	4.9
Max Green Setting (Gmax), s	9.7	34.7	25.1	10.1	9.7	34.7	10.1	25.1
Max Q Clear Time (g_c+I1), s	3.6	30.5	5.7	7.9	5.8	35.5	3.4	4.9
Green Ext Time (p_c), s	0.0	3.5	0.1	0.1	0.0	0.0	0.0	0.2

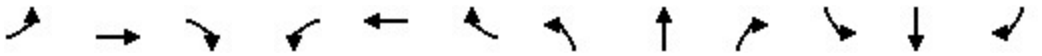
Intersection Summary	
HCM 7th Control Delay, s/veh	29.9
HCM 7th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	226	1664	392	65	1620	27	630	68	106	30	45	167
Future Volume (vph)	226	1664	392	65	1620	27	630	68	106	30	45	167
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	28.2	9.6	9.6	28.2	28.2	9.6	27.4	27.4	9.6	27.4	27.4
Total Split (s)	14.0	52.4	29.0	9.6	48.0	48.0	29.0	47.1	47.1	10.9	29.0	29.0
Total Split (%)	11.7%	43.7%	24.2%	8.0%	40.0%	40.0%	24.2%	39.3%	39.3%	9.1%	24.2%	24.2%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	9.4	48.5	73.5	5.0	42.0	42.0	23.8	34.3	34.3	5.9	12.3	12.3
Actuated g/C Ratio	0.09	0.45	0.68	0.05	0.39	0.39	0.22	0.32	0.32	0.05	0.11	0.11
v/c Ratio	0.79	0.76	0.34	0.43	0.86	0.04	0.87	0.12	0.19	0.32	0.22	0.56
Control Delay (s/veh)	68.5	29.0	1.5	60.1	36.3	0.1	54.7	28.4	6.0	60.0	45.8	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	68.5	29.0	1.5	60.1	36.3	0.1	54.7	28.4	6.0	60.0	45.8	18.1
LOS	E	C	A	E	D	A	D	C	A	E	D	B
Approach Delay (s/veh)		28.2			36.7			46.1			28.4	
Approach LOS		C			D			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 108	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay (s/veh): 34.0	Intersection LOS: C
Intersection Capacity Utilization 75.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Sherman Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	1664	392	65	1620	27	630	68	106	30	45	167
Future Volume (veh/h)	226	1664	392	65	1620	27	630	68	106	30	45	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	243	1789	261	70	1742	18	677	73	71	32	48	126
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	309	2282	1038	150	2048	636	751	541	459	53	191	161
Arrive On Green	0.09	0.44	0.44	0.04	0.39	0.39	0.21	0.28	0.28	0.03	0.10	0.10
Sat Flow, veh/h	3510	5187	1577	3510	5187	1610	3510	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	243	1789	261	70	1742	18	677	73	71	32	48	126
Grp Sat Flow(s),veh/h/ln	1755	1729	1577	1755	1729	1610	1755	1900	1610	1810	1900	1610
Q Serve(g_s), s	6.8	29.6	6.9	2.0	30.7	0.7	18.9	2.9	3.3	1.8	2.3	7.7
Cycle Q Clear(g_c), s	6.8	29.6	6.9	2.0	30.7	0.7	18.9	2.9	3.3	1.8	2.3	7.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	309	2282	1038	150	2048	636	751	541	459	53	191	161
V/C Ratio(X)	0.79	0.78	0.25	0.47	0.85	0.03	0.90	0.13	0.15	0.60	0.25	0.78
Avail Cap(c_a), veh/h	329	2406	1076	175	2179	676	853	789	668	113	446	378
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	24.0	7.2	47.0	27.7	18.6	38.5	26.7	26.9	48.2	41.7	44.1
Incr Delay (d2), s/veh	10.2	1.7	0.1	0.8	3.3	0.0	10.9	0.1	0.2	4.0	0.7	7.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	11.3	1.9	0.8	12.2	0.2	9.0	1.3	1.2	0.8	1.1	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.0	25.7	7.3	47.8	31.0	18.6	49.4	26.8	27.0	52.2	42.4	52.0
LnGrp LOS	E	C	A	D	C	B	D	C	C	D	D	D
Approach Vol, veh/h		2293			1830			821			206	
Approach Delay, s/veh		26.7			31.5			45.5			49.8	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	34.0	8.9	50.0	26.1	15.5	13.4	45.5
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	6.3	41.7	5.0	46.6	24.4	23.6	9.4	42.2
Max Q Clear Time (g_c+I1), s	3.8	5.3	4.0	31.6	20.9	9.7	8.8	32.7
Green Ext Time (p_c), s	0.0	0.6	0.0	10.7	0.6	0.5	0.0	6.9

Intersection Summary	
HCM 7th Control Delay, s/veh	32.3
HCM 7th LOS	C

APPENDIX 7.8: HORIZON YEAR (2045) WITH PROJECT OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1851	1254	1813	255	367	368	1197
v/c Ratio	0.87	0.77	0.85	0.16	0.42	0.41	0.91
Control Delay (s/veh)	37.2	3.7	36.2	0.2	20.7	20.4	38.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.2	3.7	36.2	0.2	20.7	20.4	38.6
Queue Length 50th (ft)	475	0	460	0	179	173	498
Queue Length 95th (ft)	545	0	528	0	259	250	#687
Internal Link Dist (ft)	624		681			1327	
Turn Bay Length (ft)					800		240
Base Capacity (vph)	2207	1615	2207	1582	912	940	1376
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.78	0.82	0.16	0.40	0.39	0.87

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	1671	943	1050	554	520	523	535
v/c Ratio	0.70	0.59	0.44	0.34	0.71	0.69	0.44
Control Delay (s/veh)	22.9	1.6	18.6	0.5	29.3	28.3	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.9	1.6	18.6	0.5	29.3	28.3	19.9
Queue Length 50th (ft)	275	0	146	0	251	242	116
Queue Length 95th (ft)	433	0	240	0	440	422	194
Internal Link Dist (ft)	681		457			1320	
Turn Bay Length (ft)					700		270
Base Capacity (vph)	3246	1580	3246	1615	1116	1154	1821
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.60	0.32	0.34	0.47	0.45	0.29

Intersection Summary

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1999	1150	1972	452	422	423	1090
v/c Ratio	0.86	0.71	0.85	0.28	0.52	0.50	0.89
Control Delay (s/veh)	34.5	2.7	33.8	0.4	25.2	24.8	38.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.5	2.7	33.8	0.4	25.2	24.8	38.9
Queue Length 50th (ft)	505	0	493	0	230	223	451
Queue Length 95th (ft)	575	0	563	0	328	316	#591
Internal Link Dist (ft)	624		681			1327	
Turn Bay Length (ft)					800		240
Base Capacity (vph)	2383	1615	2383	1582	850	876	1284
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.71	0.83	0.29	0.50	0.48	0.85

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	1800	1046	1259	771	583	583	576
v/c Ratio	0.76	0.66	0.53	0.47	0.76	0.74	0.46
Control Delay (s/veh)	26.9	2.2	22.0	1.0	32.9	31.5	21.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.9	2.2	22.0	1.0	32.9	31.5	21.0
Queue Length 50th (ft)	368	0	222	0	355	340	153
Queue Length 95th (ft)	490	0	303	0	509	483	209
Internal Link Dist (ft)	681		457			1337	
Turn Bay Length (ft)					700		270
Base Capacity (vph)	2789	1580	2789	1615	995	1025	1626
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.66	0.45	0.48	0.59	0.57	0.35

Intersection Summary

MEMORANDUM

URBAN | CROSSROADS

DATE: August 27, 2024
TO: Kari Cano, Kimley-Horn
FROM: Alex So, Urban Crossroads, Inc.
JOB NO: 15796-03 VMT Redlines

ETHANAC BUSINESS PARK (PLN23-0171, PLN23-0173, PLN23-0174, PLN23-0175) VEHICLE MILES TRAVELED (VMT) ASSESSMENT

Urban Crossroads, Inc. has completed the following Vehicle Miles Traveled (VMT) Assessment for the Ethanac Business Park (PLN23-0171, PLN23-0173, PLN23-0174, PLN23-0175) (**Project**), which is located south of Ethanac Road, east of Trumble Road, west of Sherman Road, and north of McLaughlin Road in the City of Menifee.

PROJECT OVERVIEW

The Project includes the development of a 264,710-square-foot warehouse building which includes 10,000 square feet of office support space on an 11.47 acre site (see Attachment A). It is our understanding the proposed Project Planning Application consists of a Plot Plan (PLN23-0171), a General Plan Amendment (PLN23-0173) to change the land use from Heavy Industrial to Menifee North Specific Plan, a Change of Zone (PLN23-0174) to change zoning from Heavy Industrial to Menifee North Specific Plan and a Specific Plan Amendment (PLN23-0175) to modify the boundary of the existing Menifee North Specific Plan to include the proposed Project and designate it as Planning Area 2 (Industrial).

The site is currently occupied by North County Sand & Gravel that currently operates Monday through Friday between 8:00 AM to 4:00 PM. A preliminary site plan can be found in Attachment A.

BACKGROUND

The California Environmental Quality Act (CEQA) requires all lead agencies to adopt VMT as the measure for identifying transportation impacts for land use projects. To comply with CEQA, the City of Menifee adopted analytical procedures, screening tools, and significance thresholds for VMT, which are documented in the City of Menifee Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (January 2022) (**City Guidelines**) (1). These adopted City Guidelines were used to prepare this VMT assessment.

VMT SCREENING

City Guidelines states that a project may have a less than significant impact and screen from requiring a project-level VMT analysis if it meets any of the City's VMT screening steps. VMT screening steps are described below along with a determination of the Project's eligibility for each screening criteria.

TABLE 1: SCREENING FOR LAND USE PROJECTS EXEMPT FROM VMT ANALYSIS

Screening Criteria	Description	Result
1. Transit Priority (TPA) Screening	Projects located within a TPA (i.e., within a half mile of an existing major transit stop or an existing stop along a high-quality transit corridor) are presumed to have less than significant impact on VMT.	Does not meet.
2. Low VMT Area Screening	Land use projects located within a low VMT generating zone that can reasonably be expected to generate VMT per service population that is similar to the existing land uses in the low VMT area are presumed to have a less than significant VMT impact.	Does not meet.
3. Project Type Screening	Local-Serving Retail under 50,000 square feet, Local Essential Services, and projects generating less than 110 daily vehicle trips are presumed to have a less than significant impact on VMT.	Does not meet.

The Project was not found to be eligible for VMT screening and consistent with City Guidelines a project-level VMT analysis should be performed.

VMT ASSESSMENT FOR ROUTINE PROJECTS

WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS (WRCOG) VMT TOOL

As described in the City Guidelines, WRCOG provides a VMT Calculator as an alternative function to mimic the results of Riverside County Transportation Model (RIVCOM) for VMT analysis on routine projects. RIVCOM is a travel demand model to used determine if the project has a significant impact. RIVCOM version 4.0.1 was released in January 2024 and is the most current sub-regional modeling tool for Western Riverside County.

Routine projects are simple in nature that are similar to other standard land uses in the City and model. The calculator can estimate the project VMT based on the project type, size, location, and average travel distance to the project site. The results can provide an expectation of the project VMT as compared to the adopted threshold to estimate if significant impact will occur without the need to run RIVCOM.

The VMT Calculator can be sufficient to estimate VMT impact for routine projects with similar land use types in the project TAZ. The VMT Calculator can be used to determine if the proposed project is similar in nature to the uses within the project TAZ. If the proposed project land use differs from the assumed land use in a project TAZ, it is not appropriate to assume that a project will result in similar VMT or trip length characteristics, and a full model run would be recommended.

As shown in Attachment B, Exhibits B-1 & B-2, our review of the existing land uses represented in the Project's traffic analysis zone (TAZ) TAZ 1100 in the base year model contains low levels employment of which none are consistent with the proposed Project. In addition, the cumulative

year model also contains low levels of employment. Therefore, the land use information represented in the base year and cumulative year models are not consistent with the proposed Project. The Project would increase employment as compared to what is contained in its TAZ that could alter travel distances and travel patterns. The VMT assessment for routine projects is not applicable in this case, and consistent with City Guidelines a full VMT assessment is required.

VMT ANALYSIS

TRAFFIC MODELING METHODOLOGY

Consistent with City Guidelines, a project-level VMT analysis shall be conducted using the RIVCOM. RIVCOM is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. The calculation of VMT for land use projects is based on the total number of trips generated and the average trip length of each vehicle type.

VMT ANALYSIS METHODOLOGY

As stated within the City's Guidelines, the analysis should include 'project generated VMT' and 'project effect on VMT' estimates for the project transportation/traffic analysis zone (TAZ) for baseline and cumulative conditions. For the purposes of this analysis, The Project's VMT estimates have been prepared using the Origin/Destination method to estimate project-generated VMT and Boundary method to estimate project effect on VMT. VMT has been presented as total VMT and total VMT per service population (i.e., population and employees). Total VMT represents all VMT generated by the Project on a typical weekday and total VMT per service population is an efficiency metric representing total VMT generated on a typical weekday per person who works at the Project or travels to the Project for another purpose.

ORIGIN/DESTINATION VMT

The Origin/Destination (OD) method for calculating VMT sums all weekday VMT generated by trips with at least one trip-end in the study area (i.e., Project boundary or City boundary) and tracks those trips to their origin or destination. Origins are all vehicle trips that start in a specific TAZ, while destinations are all vehicle trips that end in a specific TAZ. The OD method accounts for all trips (i.e., both passenger cars and trucks) and trip purposes (i.e., total VMT) and therefore provides a more complete estimate of project-generated VMT.

BOUNDARY VMT METHOD

The boundary method is the sum of all weekday VMT on the roadway network within a designated boundary (i.e., City boundary or other designated geographic area). The boundary method estimates VMT by multiplying vehicle trips on each roadway segment within the boundary by that segment's length. This approach consists of all trips, including those trips that do not begin or end in the designated boundary. Consistent with City VMT Guidelines, the City of Menifee was used as the boundary for this assessment, as "citywide" has been identified as the basis of measurement, which will be discussed in the next section.

VMT IMPACT THRESHOLD

The City of Menifee has adopted the following thresholds of significance related to VMT for land use projects. The following thresholds are to be applied to determine potential project-generated VMT impacts:[1]

1. The baseline project-generated VMT per service population exceeds the County of Riverside General Plan Buildout VMT per service population, or
2. The cumulative project-generated VMT per service population exceeds the County of Riverside General Plan Buildout VMT per service population.

As identified in the City Guidelines, the impact threshold of the County of Riverside General Plan Buildout using the latest version of RIVCOM is **33.6 VMT per service population**.

In addition, the Project's effect on VMT would be considered significant if it results in one of the following two conditions are to be satisfied:

1. The baseline link-level[2] Citywide boundary VMT per service population to increase under the plus project condition compared to the no project condition, or
2. The cumulative link-level Citywide boundary VMT per service population to increase under the plus project condition compared to the no project condition.

VMT ESTIMATES

To estimate project-generated VMT, standard land use information such as building square footage must first be converted into a RIVCOM compatible dataset. The RIVCOM model utilizes socio-economic data (SED) (e.g., population, households, and employment) for the purposes of vehicle trip estimation. Table 2 summarizes the SED inputs used to represent the Project. Project SED data was then coded into the Project's TAZ to isolate project-generated VMT.

TABLE 2: PROJECT POPULATION AND EMPLOYMENT ESTIMATES

Land Use	Quantity	Conversion Factor	Estimated SED
Industrial	264,710 SF	1,030 SF per employee[3]	257 Employees

PROJECT-GENERATED VMT

Project-level VMT estimates were extracted from RIVCOM using the OD trip matrices, which includes project-generated VMT for all vehicle trips (both passenger cars and trucks) and trip

[1] City Guidelines; Page 15
[2] Link-Level refers to the measurement of the total miles driven by vehicles on a specific road segment or link within a transportation network.
[3] Employee Density Factor was obtained from the County of Riverside General Plan Appendix E-2: Socioeconomic Build-Out Assumptions and Methodology (see Table E-5, Commercial Employment Factors, Page 2, Light Industrial). The Menifee General Plan does not have an Employee Density Factor. Given the Project's proximity to the County of Riverside, use of the County of Riverside factor is appropriate.

purposes. RIVCOM outputs are included in Attachment C. The VMT estimates for the Project are presented in Table 3.

TABLE 3: PROJECT-GENERATED VMT

	Baseline	Cumulative
Service Population	257	257
OD VMT	9,296	8,474
OD VMT per Service Population	36.2	33.0
City Threshold	33.6	33.6
Potentially Significant?	Yes	No

VMT REDUCTION STRATEGIES

The Project is forecast to exceed the City's threshold under baseline conditions and will require VMT reduction strategies in the form of trip reduction measures to reduce VMT to the extent feasible. Table 4 presents the reduction in project-generated VMT required to fully mitigate the near-term VMT impact resulting in a required 7.1% VMT reduction.

TABLE 4: REQUIRED VMT REDUCTION

Project	Baseline
VMT Reduction	-660
VMT Reduction %	-7.1%

The California Air Pollution Control Officers Association (**CAPCOA**) Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (December 2021) (**Handbook**) (2) has been utilized to determine trip reduction measures that may be applicable to the Project. The Handbook describes methods to quantify reductions in greenhouse gas emissions and in the case of Transportation measures (i.e., trip reduction strategies), the associated reductions to VMT. This evaluation will focus on a review of the Handbook's Transportation measures that are determined to be applicable to the Project.

SELECTING MEASURES

To determine which Transportation measures should be considered from the Handbook, land use type, scale, and locational context are each identified as key factors for determining an individual measure's applicability to a development project. The Handbook contains a factsheet for each measure that describes the measure, locational context, scale of application, implementation requirements, and other considerations that should be reviewed to determine a measure's applicability.

PROJECT TYPE

Project type is an important consideration when determining which measures are applicable for consideration. For example, measures associated with neighborhood design are not applicable to an office project, whereas trip reduction programs intended to reduce employee commute VMT would not be applicable to an apartment project.

SCALE

The Handbook identifies that measures can be applied at different scales or geographic levels, however, "some measures may only be applicable at the project-level, whereas others may be more appropriate within a broader planning context such as for a general plan or climate action plan." The geographic levels considered in the Handbook include Project/Site and Plan/Community. Project/Site applies to measures that can reduce VMT at the scale of an individual development project or employer. Plan/Community refers to measures that reduce VMT at the scale of a specific plan, general plan or climate action plan. Transportation measures can be quantified at either the Project/Site scale or the Plan/Community scale, but never both.[4]

LOCATIONAL CONTEXT

The Handbook describes locational context as "used to identify trip reduction measures within the transportation sector that are appropriate in certain types of neighborhoods differentiated by transportation characteristics and level of development (e.g., rural, suburban, and urban)." More specifically, rural, suburban, and urban are defined as follows.

Rural: An area characterized by little development. Compared to urban and suburban areas, rural areas have a lower density of residences, higher numbers of single-family residences, and higher numbers of vehicle dependent land use patterns. Where applicable, the Handbook provides three land use distinctions within the rural locational context category—R_a, R_b, and R_c. R_a refers to rural areas within a master-planned community. These rural areas often include a broad offering of amenities and services, which may be accessed by walking or other alternative forms of transportation. R_b refers to rural areas adjacent to a commuter rail station with convenient rail service to a major employment center. As the name implies, these rural areas have greater access to commuter rail as an alternative mode of transportation. R_c refers to rural areas with transit service and that are near jobs/services.

Suburban: An area characterized by dispersed, low-density, single-use, automobile dependent land use patterns, usually outside of the central city. Also known as a suburb.

Urban: An area located within the central city with higher density land uses than in the suburbs. Often characterized by multi-family housing, tall office buildings and dense retail.

CITY OF MENIFEE'S LOCATIONAL CONTEXT

The City of Menifee is located towards the eastern edge of the incorporated areas of the WRCOG region and is located in a predominately suburban environment due to its surroundings. Menifee contains a significant amount of single-family residential land uses and numerous low density business districts that contribute to a more suburban atmosphere within the City's boundary and linking to the surrounding City of Perris, City of Wildomar, City of Canyon Lake, City of Murrieta, and City of Lake Elsinore. In addition, compared to more urbanized areas of Riverside County, City of Menifee has a lower population density.[5]

[4] Handbook, Page 37
[5] U.S. Census Bureau;
https://www.census.gov/quickfacts/fact/table/menifeecitycalifornia,riversidecitycalifornia/PST045222

The Project is located within an area of the City that is still developing and includes both paved and unimproved roads that in some cases lack sidewalks, curbs, and gutters. There is a lack of diverse land uses within a reasonable walking distance (i.e., quarter mile), which tends to limit non-auto modes of transportation such as walking and biking. High quality transit options in the vicinity are also limited with limited-service intervals during peak commute periods. For these reasons, the Project's locational context is determined to be characteristically rural/suburban with some areas developing towards a more suburban locational context. In an effort to explore all potentially applicable trip reduction strategies, for the purposes of this assessment, all measures applicable in both rural and suburban contexts were considered.

TRANSPORTATION MEASURES

As noted in the Handbook, the Transportation section measures "promote transit and alternative transportation, support use of alternatively fueled vehicles, or encourage land use planning practices that reduce vehicle trips and vehicle miles traveled (VMT). Measures within the transportation sector are separated into six subsectors: Land Use, Neighborhood Design, Parking or Road Pricing Management, Transit, Trip Reduction Programs, and Clean Vehicles and Fuels."[6] For the purposes of this evaluation, the measures listed within the Trip Reduction Programs subsector that are focused on reducing employee commute VMT would be most applicable to the Project's industrial land use.

TRIP REDUCTION PROGRAMS SUBSECTOR

Each factsheet within the Trip Reduction Programs subsector was reviewed to determine each measure's applicability to the Project. Attachment D lists each of the reviewed measures (i.e., T-5 through T-13 and T-23) along with a determination of each measure's applicability to the Project.

The following explores all applicable mitigation measures for an industrial project located in a rural/suburban area. The quantification below assumes that a potential future tenant implements this measure using default values supplied by the Handbook's calculation factsheet. Generally, trip reduction programs are more appropriate for the building occupant or tenant (i.e., employer) to implement and monitor rather than the building owner or developer. As such, any VMT reductions are purely speculative, as the Project does not have known tenants.

T-7 COMMUTE TRIP REDUCTION MARKETING

The Project will include a marketing strategy to promote the Project site employer's CTR program. Information sharing and marketing promote and educate employees about their travel choices to the employment location beyond driving such as carpooling, taking transit, walking, and biking, thereby reducing VMT. The following features (or similar alternatives) of the marketing strategy are essential for effectiveness.

- On-site or online commuter information services.
- Employee transportation coordinators.
- On-site or online transit pass sales.
- Guaranteed ride home service.

[6] Handbook, Page 30

TABLE 5: T-7 VMT CALCULATION VARIABLES

ID	Variable	Value	Unit	Source
Output				
A	Percent reduction in GHG emissions from project/site employee commute VMT	0-4.0	%	calculated
User Inputs				
B	Percent of employees eligible for program	0-100	%	user input
Constants, Assumptions, and Available Defaults				
C	Percent reduction in employee commute vehicle trips	-4	%	TRB 2010
D	Adjustment from vehicle trips to VMT	1	unitless	assumed

$$A = B \times C \times D$$

The Project will provide employees material and online resources as a means to promote the commute trip reduction program. As calculated for the Project, with proper implementation and 90%[7] of the Project's employees eligible, this design feature is expected to reduce VMT by 3.6%.

T-8 RIDESHARING PROGRAM

The Project will provide a ridesharing program and establish a permanent transportation management association with funding requirements for employers. Ridesharing encourages carpooled vehicle trips in place of single-occupied vehicle trips, thereby reducing the number of trips and VMT. Ridesharing must be promoted through a multifaceted approach. Examples include the following.

- Designating a certain percentage of desirable parking spaces for ridesharing vehicles.
- Designating adequate passenger loading and unloading and waiting areas for ridesharing vehicles.
- Providing an app or website for coordinating rides.

[7] Employees who might not be able to participate could include those who work nighttime hours when transit and rideshare services are not available or employees who are required to drive to work as part of their job duties. As the Project is estimated to operate during typical business hours, it is expected that 90% of the employees will be operating during hours in which services associated with reduction measures are available.

TABLE 6: T-8 VMT CALCULATION VARIABLES

ID	Variable	Value	Unit	Source
Output				
A	Percent reduction in GHG emissions from project/site employee commute VMT	0-8.0	%	calculated
User Inputs				
B	Percent of employees eligible for program	0-100	%	user input
Constants, Assumptions, and Available Defaults				
C	Percent reduction in employee commute VMT	4	%	SANDAG 2019

$$A = B \times C$$

The Project could be designed to provide carpool/vanpool/EV parking designated spaces in locations of easy and convenient accessibility to the Project building. As calculated for the Project, with proper implementation and 90%[8] of the Project's employees eligible, the Project is expected to reduce VMT by 3.6%.

T-10 End-of-Trip Bicycle Facilities

This measure is listed in the Handbook as available to projects in a suburban setting. As described in the Handbook, "the measure will install and maintain end-of-trip facilities for employee use. End-of-trip facilities include bike parking, bike lockers, showers, and personal lockers. The provision and maintenance of secure bike parking and related facilities encourages commuting by bicycle, thereby reducing VMT and GHG emissions."[9] The Fact Sheet for this measure was utilized to calculate the Project's potential VMT reduction.

TABLE 7: T-10 VMT CALCULATION VARIABLES

ID	Variable	Value	Unit	Source
A	Percent reduction in GHG emissions from project/site employee commute VMT	0.1-4.4	%	calculated
User Inputs				
	None			
Constants, Assumptions, and Available Defaults				
B	Bike mode adjustment factor	1.78 or 4.86[1]	unitless	Buehler 2012
C	Existing bicycle trip length for all trips in region	2.2	miles	FHWA 2017a
D	Existing vehicle trip length for all trips in region	11.7	miles	FHWA 2017a
E	Existing bicycle mode share for work trips in region	0.4	%	FHWA 2017b
F	Existing vehicle mode share for work trips in region	95.3	%	FHWA 2017b

[1]The bike mode adjustment factor should be provided by the user based on type of bike facility. A study found that commuters with showers, lockers, and bike parking at work are associated with 4.86 times greater likelihood to commute by bicycle when compared to individuals without any bicycle facilities at work. Individuals with bike parking, but no showers and lockers at the workplace, are associated with 1.78 times greater likelihood to cycle to work than those without trip-end facilities.

$$A = \frac{C \times \left(E - (B \times E)\right)}{D \times F}$$

[8] Employees who might not be able to participate could include those who work nighttime hours when transit and rideshare services are not available or employees who are required to drive to work as part of their job duties. As the Project is estimated to operate during typical business hours, it is expected that 90% of the employees will be operating during hours in which services associated with reduction measures are available.

[9] Handbook, Page 133

The Project can include building elements for bicycle trip end facilities (i.e., parking) for commuters that choose to bicycle as a mode of travel. This will promote an alternative mode choice of commuting for employees. As calculated, the Project will reduce VMT by 0.1%.

TOTAL VMT REDUCTIONS

The Handbook states that effectiveness levels for multiple measures within a subsector may be multiplied to determine a combined effectiveness level. Because the combination of measures and independence of measures are complicated, the Handbook recommends that measure reductions within a subsector be multiplied unless the user can provide substantial evidence indicating that emission reductions are independent of one another and that they should therefore be added. Each subsector has a maximum allowable reduction. These were derived by combining the maximum allowable reduction of each individual non-mutually-exclusive measure within the subsector. As all the Project Design features above fall under the Subsector of "Trip Reduction Programs," the Handbook states that the "Trip Reduction Subsector" has a maximum reduction of 45%. Therefore, a project cannot exceed the maximum allowable reduction. The Handbook provides the following equation for combining Subsector reductions:

$$Reduction_{Subsector} = 1 - [(1 - A) \times (1 - B) \times (1 - C) \dots]$$

Project's VMT reduction are as follows:

$$-7.2\% = 1 - [(1 - 3.6\%) \times (1 - 3.6\%) \times (1 - 0.1\%)]$$

As outlined through the VMT reduction calculations presented above, with the inclusion of the VMT mitigation measures, the Project is estimated to reduce VMT impact by 7.1%. Table 8 shows the updated VMT per service population with the inclusion of VMT reductions.

TABLE 8: UPDATED VMT ESTIMATES WITH VMT REDUCTION MEASURES

	Baseline	Cumulative
Threshold OD VMT per SP	33.6	33.6
Project OD VMT per SP	33.6	30.6
Exceed Threshold?	No	No

As shown in Table 8, the Project's VMT impact with VMT reducing measures would fall below the City's VMT impact threshold under baseline and cumulative conditions.

PROJECT EFFECT ON VMT

The Project's effect on VMT has been calculated using the boundary method. Land use information representing the proposed land use changes contemplated by the Project were coded into the Project TAZ to represent the "With Project" condition. Table 9 summarizes the boundary VMT under the No Project and With Project scenarios for both baseline and cumulative conditions and any increase to VMT per service population would be considered to have significant cumulative VMT impact.

TABLE 9: BOUNDARY VMT

	Baseline		Cumulative	
Scenario	No Project	With Project	No Project	With Project
Service Population	114,569	114,729	155,465	155,569
Boundary VMT	1,933,722	1,933,917	2,529,895	2,531,011
VMT per Service Population	16.9	16.9	16.3	16.3
Change in VMT per Service Population	0.0		0.0	

The boundary VMT is found to increase under the With Project scenario for both the baseline and cumulative conditions, as expected when increases in development are added to the model. However, to measure the efficiency of a land use project or land use plan, the boundary VMT is divided by the service population to frame an efficiency metric. The resulting VMT per service population was found to remain unchanged in the With Project scenario under both conditions.

CONCLUSION

Based on the results of this analysis, the following findings are made:

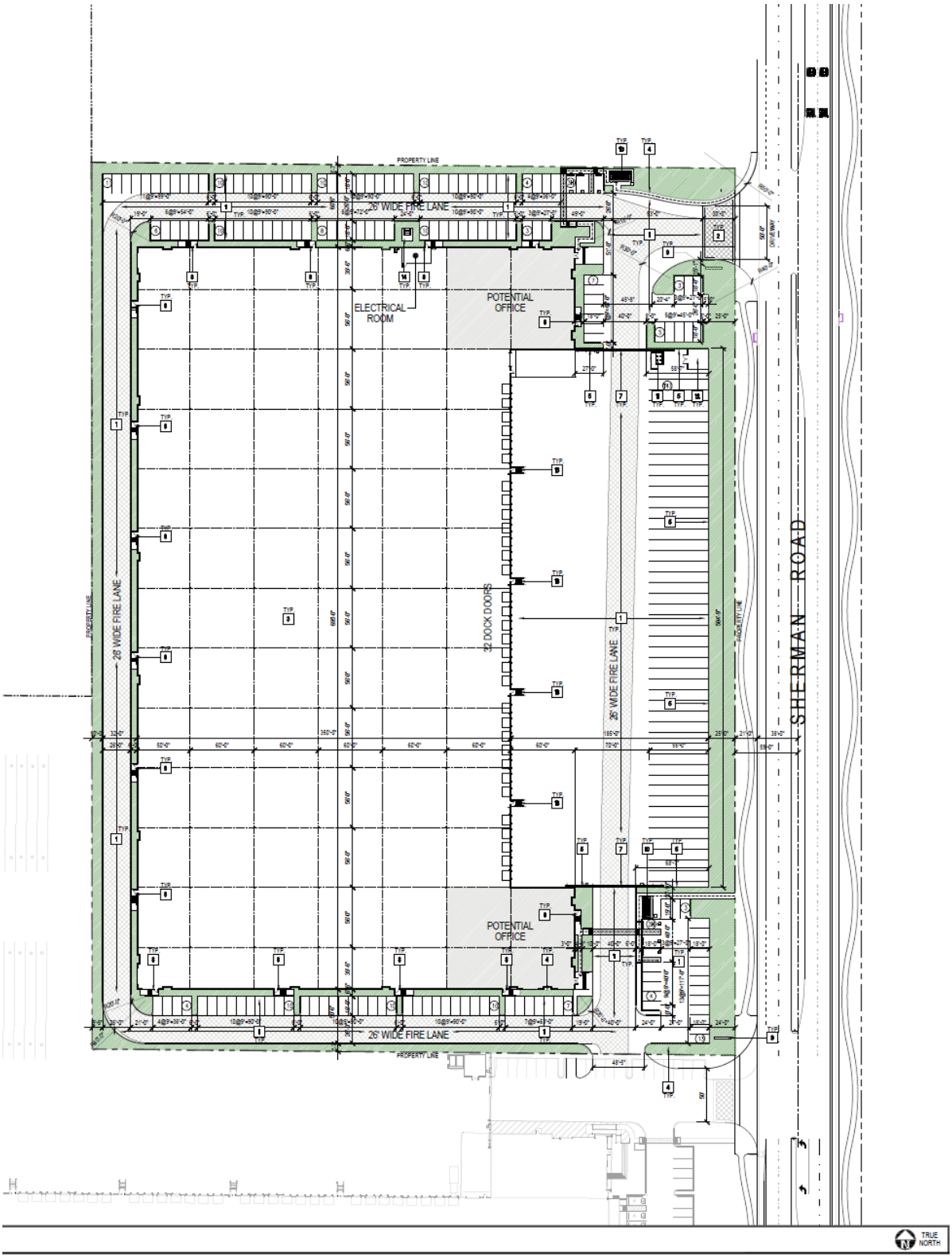
- The Project was evaluated against screening criteria as outlined in the City Guidelines. The Project was not found to meet any available screening criteria.
- The Project was evaluated using the VMT assessment for routine projects. The Project's underlying land use assumptions were not consistent with the proposed Project and a RIVCOM based VMT analysis was performed.
- The project-generated VMT per service population was found to be below the City's impact threshold for the baseline and cumulative conditions with the inclusion of VMT reductions.
- The Project's effect on VMT was found to remain the same under the With Project scenario as compared to the No Project scenario for both the baseline and cumulative condition, which is below the City's impact threshold.

If you have any questions, please contact me directly at aso@urbanxroads.com.

REFERENCES

1. **City of Menifee.** *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled.* City of Menifee : s.n., January 2022.
2. **CAPCOA.** *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity .* December 2021.

ATTACHMENT A
PRELIMINARY PROJECT SITE PLAN


PROPERTY LINE
26' WIDE FIRE LANE
ELECTRICAL ROOM
POTENTIAL OFFICE
28' WIDE FIRE LANE
32' DOCK DOORS
26' WIDE FIRE LANE
SHERMAN ROAD
POTENTIAL OFFICE
26' WIDE FIRE LANE
PROPERTY LINE
TRUE NORTH

ATTACHMENT B
WRCOG VMT TOOL

EXHIBIT B-1: BASELINE WRCOG VMT TOOL RESULTS

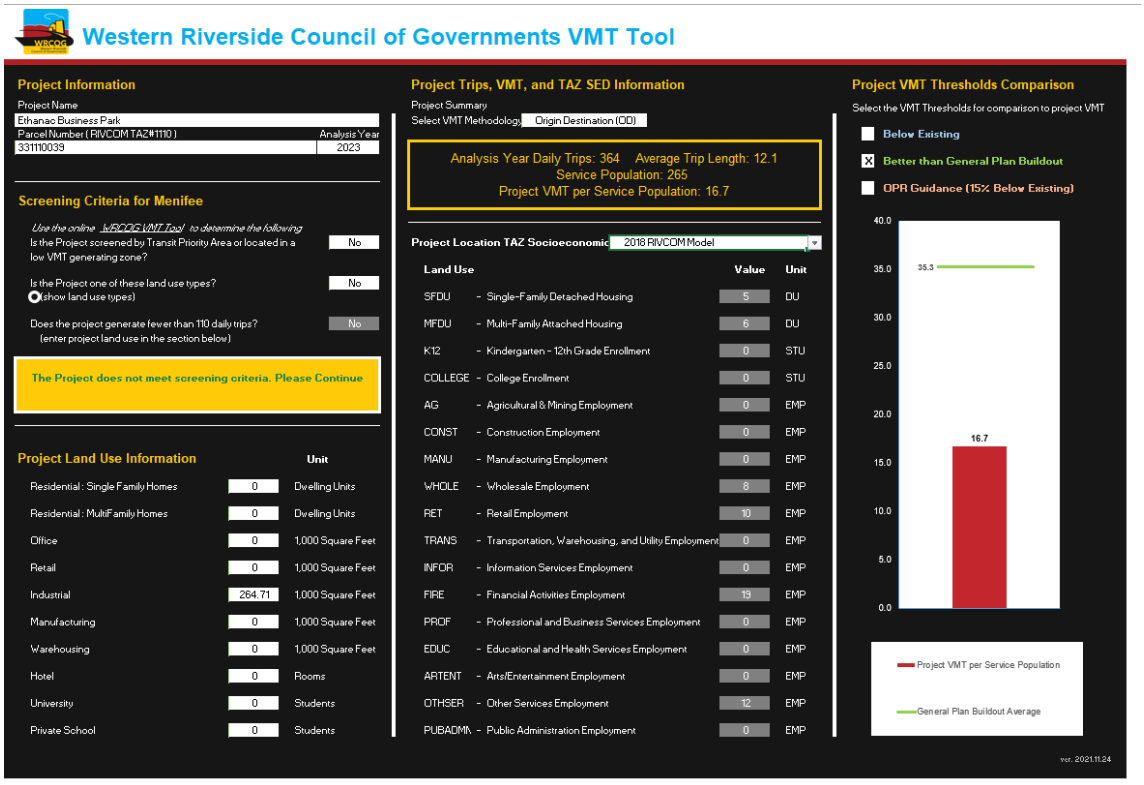
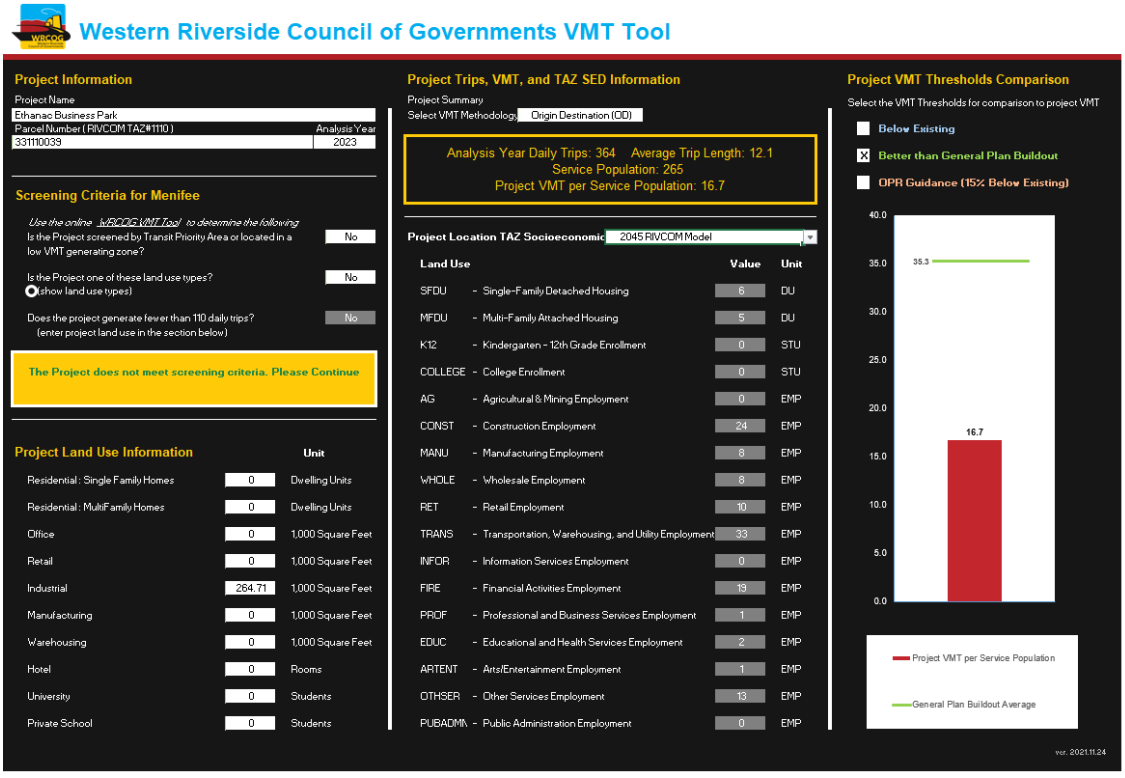


EXHIBIT B-2: CUMULATIVE WRCOG VMT TOOL RESULTS



ATTACHMENT C
RIVCOM OUTPUTS

TABLE C-1: 2018 RIVCOM OUTPUT

TAZ	1110
Daily_Home-Based (incl. IEHB) Prod VMT	869.706543
Daily_HBW (incl. EIHBW) Attr VMT	5683.897949
Daily_Total Auto OD From VMT	3590.442383
Daily_Total Auto OD To VMT	3800.065918
Daily_Total Auto OD Intra VMT	0.18319
Daily_Total Truck OD From VMT	1068.385986
Daily_Total Truck OD To VMT	1071.465942
Daily_Total Truck OD Intra VMT	0.437148
Daily_Total OD From VMT	4658.828125
Daily_Total OD To VMT	4871.531738
Daily_Total OD Intra VMT	0.620338
Daily_Total_TripLen	18.188148
Population	0
Employment	257
Enrollment	0

TABLE C-2: 2045 RIVCOM OUTPUT

TAZ	1110
Daily_Home-Based (incl. IEHB) Prod VMT	852.269287
Daily_HBW (incl. EIHBW) Attr VMT	4989.596191
Daily_Total Auto OD From VMT	3215.485107
Daily_Total Auto OD To VMT	3423.844727
Daily_Total Auto OD Intra VMT	0.106465
Daily_Total Truck OD From VMT	915.855774
Daily_Total Truck OD To VMT	918.785217
Daily_Total Truck OD Intra VMT	0.287813
Daily_Total OD From VMT	4131.34082
Daily_Total OD To VMT	4342.629883
Daily_Total OD Intra VMT	0.394278
Daily_Total_TripLen	15.316829
Population	0
Employment	257
Enrollment	0

ATTACHMENT D
VMT REDUCTION MEASURES

Subsector	Measure	Scale of Application	Applicable Locational Context	Applicability to Project
Trip Reduction Programs	**T-5 Implement Commute Trip Reduction Program (Voluntary)** This measure will implement a voluntary commute trip reduction (CTR) program with employers.	Project/ Site	Urban, Suburban	Reduction is not feasible due to a speculative building with an unknown employer.
	T-6 Implement Commute Trip Reduction Program (Mandatory Implementation and Monitoring) This measure will implement a mandatory CTR program with employers. CTR programs discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking, thereby reducing VMT and GHG emissions.	Project/ Site	Urban, Suburban	Reduction is not feasible due to a speculative building with an unknown employer.
	T-7 Implement Commute Trip Reduction Marketing This measure will implement a marketing strategy to promote the project site employer's CTR program. Information sharing and marketing promote and educate employees about their travel choices to the employment location beyond driving such as carpooling, taking transit, walking, and biking, thereby reducing VMT and GHG emissions.	Project/ Site	Urban, Suburban	Reduction is not guaranteed due to a speculative building with an unknown employer.
	T-8 Provide Ridesharing Program This measure will implement a ridesharing program and establish a permanent transportation management association with funding requirements for employers.	Project/ Site	Urban, Suburban	Reduction is not guaranteed due to a speculative building with an unknown employer.
	T-9 Implement Subsidized or Discounted Transit Program This measure will provide subsidized or discounted, or free transit passes for employees and/or residents.	Project/ Site	Urban, Suburban	Not feasible due to extended service intervals.
	T-10 Provide End-of-Trip Bicycle Facilities This measure will install and maintain end-of-trip facilities for employee use. End-of-trip facilities include bike parking, bike lockers, showers, and personal lockers.	Project/ Site	Urban, Suburban	Reduction is not guaranteed due to a speculative building with an unknown employer.
	T-11 Provide Employer-Sponsored Vanpool This measure will implement an employer-sponsored vanpool service. Vanpooling is a flexible form of public transportation that provides groups of 5 to 15 people with a cost-effective and convenient rideshare option for commuting.	Project/ Site	Urban, Suburban, Rural	Reduction is not guaranteed due to a speculative building with an unknown employer.
	T-12 Price Workplace Parking This measure will price onsite parking at workplaces. Because free employee parking is a common benefit, charging employees to park onsite increases the cost of choosing to drive to work	Project/ Site	Urban, Suburban	Reduction is not feasible due to the lack of diversity in the surrounding area.
	T-13 Implement Employee Parking Cash-Out This measure will require project employers to offer employee parking cash-out. Cash-out is when employers provide employees with a choice of forgoing their current subsidized/free parking for a cash payment equivalent to or greater than the cost of the parking space. This encourages employees to use other modes of travel instead of single occupancy vehicles.	Project/ Site	Urban, Suburban	Reduction is not feasible due to the lack of diversity in the surrounding area.
	T-23 Provide Community-Based Travel Planning This measure will target residences in the plan/community with community-based travel planning (CBTP). CBTP is a residential-based approach to outreach that provides households with customized information, incentives, and support to encourage the use of transportation alternatives in place of single occupancy vehicles.	Plan/ Community	Urban, Suburban	Does not apply at the Project/Site scale of the Phased scenarios.

Source: Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, California Air Pollution Control Officers Association (CAPCOA), December 2021.
Notes:
1. Per CAPCOA Handbook, the combined maximum for each subsector or total across subsectors is calculated as:
1 - ((1-A)*(1-B)*(1-C)*(1-D)…); where, A, B, C, and D… represent the percent reduction for individual measures or subsectors.

Appendix K: Water and Sewer Will Serve Letter

December 1, 2023

Dakota Stokley
Huitt-Zollars, Inc
3990 Concours St STE #330
Ontario 91764

Subject: SAN 53 – WS 20230001386 - APN: 331-110-023,038,039

Eastern Municipal Water District (EMWD) is willing to provide water and sewer services to the subject project. The provisions of service are contingent upon the developer completing the necessary arrangements in accordance with EMWD rules and regulations. EMWD expects the developer to provide proper notification when a water demand assessment is required pursuant to Senate Bill 221 and/or 610. EMWD expects the developer to coordinate with the approving agency for the proper notification. Further arrangements for service from EMWD may also include plan check, facility construction, inspection, jurisdictional annexation, and payment of financial participation charges. The developer is advised to contact EMWD's Development Services Department early in the entitlement process to determine the necessary arrangements for service, and to receive direction on the preparation of facility Design Conditions, which is required prior to final engineering.

EMWD's ability to serve is subject to limiting conditions, such as regulatory requirements, legal issues, or conditions beyond EMWD's control.

Expiration – one year from date of issue

Thank you for your cooperation in serving our mutual customers. If you have any questions, please call me at (951) 928-3777, extension 4817.

Sincerely,

Christopher J. Larry II,
Administrative Assistant, Temporary Employee for Development Services
Development Services Department
Eastern Municipal Water District

CJL:cjl

Board of Directors
Philip E. Paule, *President* Stephen J. Corona, *Vice President* Jeff Armstrong Randy A. Record David J. Slawson

2270 Trumble Road • P.O. Box 8300 • Perris, CA 92572-8300
T 951.928.3777 • F 951.928.6177 www.emwd.org

PO Box 8300, Perris CA 92572-8300 (951) 928-3777

RECEIPT OF PAYMENT

Contact: HUITT-ZOLLARS, INC (DAKOTA STOKLEY) - 3990 CONCOURS ST, ONTARIO, CA 91764
Date Paid: 11/30/2023
Project Info: ETHANAC BUSINESS PARK - MB-011/038-
Received By: larryc

Fees Paid:

Description	Reference Numbers	Amount Owing	Amount Paid
WILL SERVE LETTER CHARGES	WS20230001386	$89.00	$89.00

Amount Tendered: $89.00

Change/Overage: $0.00

Payment Details:	Payment Method	Amount Tendered	Check Number
	CASH	$89.00	

Receipt Number: **2023007541**

v:1.0.52/6

****
EMWD
MAIN OFFICE
2270 Trumble Road
Perris, CA 92570
951-928-3777
****
Receipt#: 1601000002
Accounting Date: Thu, Nov 30, 2023
Date/Time: Thu, Nov 30, 2023 8:08AM
****
NON_RECVBL - Non-receivables Pmt
REF#:-1-1601
[$0.00]
FEE AMOUNT : $89.00

RECEIPT TOTAL $89.00
****
Payment Data
Pmt# :1
Payer :WSL 331-110-023
METHOD :CASH- $90.00
-
Pmt# :2
Payer :
METHOD :CASH- $-1.00
-
****
RECEIPT SUMMARY
****
TOTAL TENDERED $89.00
RECEIPT TOTAL $89.00

CHANGE DUE $0.00
****
HAVE A GREAT DAY
****