PUBLIC REVIEW DRAFT

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

FOR THE

PLATINUM EXPRESS TRUCK YARD

7235 PACIFIC AVENUE
PLEASANT GROVE, CA

SUTTER COUNTY PROJECT #U22-0013

AUGUST 2023

Prepared for:
SUTTER COUNTY DEVELOPMENT SERVICES DEPARTMENT
1130 CIVIC CENTER BOULEVARD, SUITE A
YUBA CITY, CA 95993

Prepared by:
BASECAMP ENVIRONMENTAL, INC.
802 W. LODI AVENUE
LODI, CA 95240

BaseCamp Environmental, Inc.

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Prepared by:
BaseCamp Environmental, Inc.
802 W. Lodi Avenue
Lodi, CA 95240
209-224-8213
www.basecampenv.com

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LIST OF ACRONYMS AND ABBREVIATONS USED IN THIS DOCUMENT

AB	Assembly Bill
BMP	Best Management Practice
CalEEMod	California Emissions Estimator Model
CAP	Climate Action Plan
CARB	California Air Resources Board
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
CUPA	Certified Unified Program Agency
dBA	decibel, A-weighted
DPM	diesel particulate matter
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
FRAQMD	Feather River Air Quality Management District
GHG	greenhouse gas
LOS	Level of Service
NAHC	Native American Heritage Commission
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
OPR	Governor's Office of Planning and Research
PG&E	Pacific Gas and Electric Company
PM10	particulate matter 10 microns or less in diameter
PM2.5	particulate matter 2.5 microns or less in diameter
PPV	peak particle velocity
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
STAA	Surface Transportation Assistance Act
SWPPP	Storm Water Pollution Prevention Plan
TA	Terminal Access
TAC	toxic air contaminant
TCR	tribal cultural resource

THRIS	Tribal Historic Information System
TRU	Transport Refrigeration Unit
UAIC	United Auburn Indian Community
USDA	United States Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled

Sutter County
Initial Study

1. Project Title:	Project #U22-0013 (Platinum Express)
2. Lead Agency Name and Address:	Sutter County Development Services Dept. Planning Division 1130 Civic Center Boulevard, Suite A Yuba City, CA 95993
3. Contact Person and Phone Number:	Casey Murray, Senior Planner 530-822-7400, ext. 245
4. Project Sponsor's Name and Address:	<u>Project Applicant and Owner</u> Platinum Express, Inc. 1512 Starr Drive, Suite C Yuba City, CA 95993 <u>Project Engineer</u> John Mallen MHM Inc. 1204 E Street Marysville, CA 95901
5. Project Location & APN:	7235 Pacific Avenue, Pleasant Grove, CA 95668, on the west side of Pacific Avenue, approximately 1.5 miles north of Riego Road, approximately 0.5 miles south of Sankey Road; APN: 35-220-017 (see Figures 1-1 to 1-5)
6. General Plan Designation:	SP (Sutter Pointe Specific Plan)
7. Zoning Classification:	AG (Agriculture) District

8. Description of Project:

The project proposes a use permit to make improvements to an 8.33-acre parcel at 7235 Pacific Avenue for eventual use as a large general truck yard (Figure 1-6). Historically, the project site was previously permitted and used as a commercial rice processing facility. The site has three existing large buildings. Two of these buildings - a northern building with an approximate floor area of 10,000 square feet and a southern building with an approximate floor area of 6,000 square feet - would be used for truck repairs, which would include oil changes, engine repairs, and tire installations. The shops would also perform trailer maintenance, including brakes, tires, and general preventative work. There would be no glass repair, body repair, or painting done on the trucks or trailers. All materials would be stored in the shop buildings. The existing office in the northern building would remain in use, as would an existing bathroom in the office for employee use. The existing buildings to remain would be painted ash gray, and the trim around the doors, bays, and gutters would be burnished slate. The third center greenhouse building, approximately 4,320 square feet in floor area, would be removed. No new structures are proposed with this project, and there would be no expansion of the buildings that would remain.

The project proposes the installation of 112 parking spaces for trucks and trailers (Figure 1-7). The truck parking spaces would be 70 feet long by 12 feet wide and can accommodate Surface Transportation Assistance Act (STAA) trucks. Trucks using these spaces would be stored on site for both short term and long term (i.e., parked for more than five days on site). The entire parking and vehicle maneuvering areas would be paved with asphalt concrete, which would involve replacing the existing paved portion of the project site. The anticipated total number of trucks leaving the site per day would be no more than 30. There would be at maximum 35 transportation refrigeration units (TRUs) on the project site. However, only five TRUs would be running at a time for up to two hours a day, then the next five would run. These would only be running during the summer due to the increased heat. These TRUs would be compliant with the Ultra-Low-Emission TRU standards established by the California Air Resources Board (ARB). Per California law, no truck shall idle more than five minutes on site.

The project also would provide 52 parking spaces for passenger vehicles, three of which would be accessible parking spaces. The passenger vehicle spaces would be nine feet wide by 15.5 or 18 feet long and would be located along the eastern boundary of the project site and between the two buildings that would remain. As indicated on the site plan, additional parking for passenger vehicles would be available in 55 of the proposed truck parking spaces. Curbs would be installed at specific locations in both the truck and passenger vehicle parking areas to protect fencing, landscaping, and buildings.

The project would remove its one existing driveway and would install two new 45-foot-wide driveways that would connect to Pacific Avenue to the east. A 12-inch storm drain culvert is proposed underneath each entrance. The proposed run of the driveway from the new parking lot is more than 65 feet, to allow trucks to be completely off Pacific Avenue when they enter. Two signs would be installed at the property, one each at the entrance and exit. The main route that trucks would use would be Riego Road, leading to State Route 99.

Five trailer-mounted restroom facilities would be brought in to meet the Sutter County Code requirement of one restroom per 25 trucks for large general truck yards. Each trailer would have one toilet and one handwashing station. Restrooms would be accessible 24 hours a day, seven days a week and would be serviced and cleaned weekly by a septic pumper registered with Sutter County.

Two trash enclosures are proposed to be installed northwest of the northern building. Each enclosure would have a four-cubic yard dumpster. Six-foot-tall chain link fencing with 90 percent screening security slats would be installed along the boundaries of the project site. The project proposes 27 LED lighting fixtures throughout the project site - 22 on poles and five on the northern building. Existing lighting would be removed and replaced to ensure lighting requirements are met. Lighting would be motion-activated and have shields. All lighting fixtures would have a maximum height of 20 feet. Appendix A has a photometric plan for the project.

Landscaping would cover approximately 17,067 square feet of the project site (see landscaping plan sheet L3 in Appendix A). Landscaping would consist of planters installed along the northern, southern, western, and eastern boundaries of the project and within curbs installed in the passenger vehicle parking areas. Along the eastern boundary, red crape myrtle trees and Sago palm trees along with various shrubs and groundcovers would be planted. Shrubs would be planted along the northern, western, and southern boundaries. Norway maple trees would be planted along the northern and western boundaries. Trees consisting of autumn purple ash and shrubs would be planted in the parking areas near the buildings. Proposed landscaping would shade approximately 85 percent of parking areas. A drip irrigation system for the landscaping would be installed. Existing oleanders along the southeast corner of the site would remain to provide additional screening.

The project would connect to existing electrical overhead lines on and adjacent to the project site. Water would be provided by a well proposed to be drilled in the northeastern corner of the project site. This well would be relocated from an existing well on the site. An existing onsite septic system with a leach field would be removed and replaced with an onsite holding tank, along with the proposed trailer-mounted restroom facilities.

The proposed drainage system for the project site would connect to an existing drainage ditch that runs parallel to the north and west property lines. The existing drainage ditch would be modified to be a retention pond. A retention pond is also proposed along the south property line and a separate detention pond is proposed in the northwest corner of the site. A system of storm drain inlets and gutters would convey runoff to the ponds. Two outlets connected to the collection system would be installed in the retention pond, where collected runoff would percolate into the ground. A 12-inch-diameter inlet would connect the detention pond to the collection system. Runoff collected in the detention pond would be discharged through a 12-inch-diameter outlet into the retention pond proposed along the western boundary of the project site.

The main hours of operation of the proposed truck yard would be from 8:00 a.m. to 5:00 p.m. Monday through Saturday. However, the site would remain open 24 hours a day, seven days a week for truck parking; all other services would be closed outside of normal business hours. Onsite security would be provided. The number of employees on the site at peak hours would be five.

An existing diesel tank and gasoline tank west of the south building were previously removed. As noted, the project would remove one of the existing buildings and the existing driveway. Other existing features that would be removed include an overhang on the northern building, an accessory building and concrete pad adjacent to the southern building, two ponds in the southwestern corner of the project site, two aboveground propane tanks, one tree near the northern building, and existing chain-link fencing. Project construction, including removal of these features, is anticipated to be completed in less than two months.

9. Surrounding Land Uses and Setting:

The project site is adjacent to agricultural fields to the north, south, and west. East of and adjacent to the project site is Pacific Avenue, a two-lane County road. Across Pacific Avenue are industrial buildings occupied by Holt Industries.

10. Other Public Agencies Whose Approval is Required:

State Water Resources Control Board (Construction General Permit)

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

Requests for comments sent to seven tribes. Response was received from one tribe – the Mooretown Rancheria. The tribe reserved the right to be notified of any post-review/inadvertent discoveries. No requests to consult on the project were received.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" requiring mitigation, as indicated by the checklist on the following pages. Each of these impacts would be reduced to a less than significant level by mitigation measures agreed to by the applicant.

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

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

✓ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

<u>Applicant Mitigation Agreement:</u>

CEQA allows a project proponent to make revisions to a project, and/or to agree and comply with mitigation measures that reduce the project impacts such that the project will not have a significant effect on the environment (CEQA Guidelines Section 15064).

As the applicant/representative for this proposed project, I hereby agree to implement the proposed mitigation measures and mitigation monitoring program identified within this document.

8/14/2023

Signature of Applicant/Representative — Date

Neal Hay — 8-14-2023

Neal Hay, Director of Development Services — Date
Environmental Control Officer

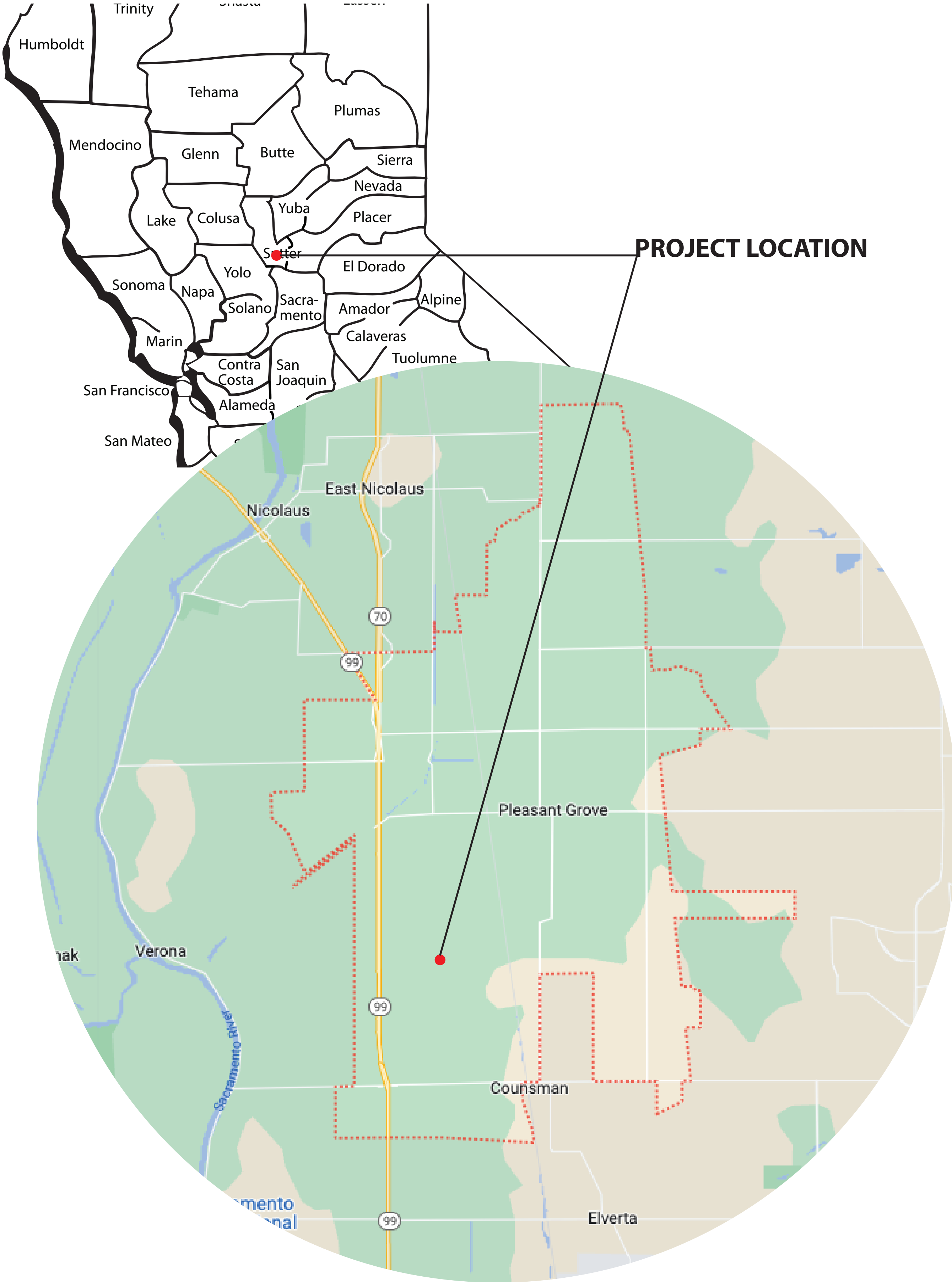

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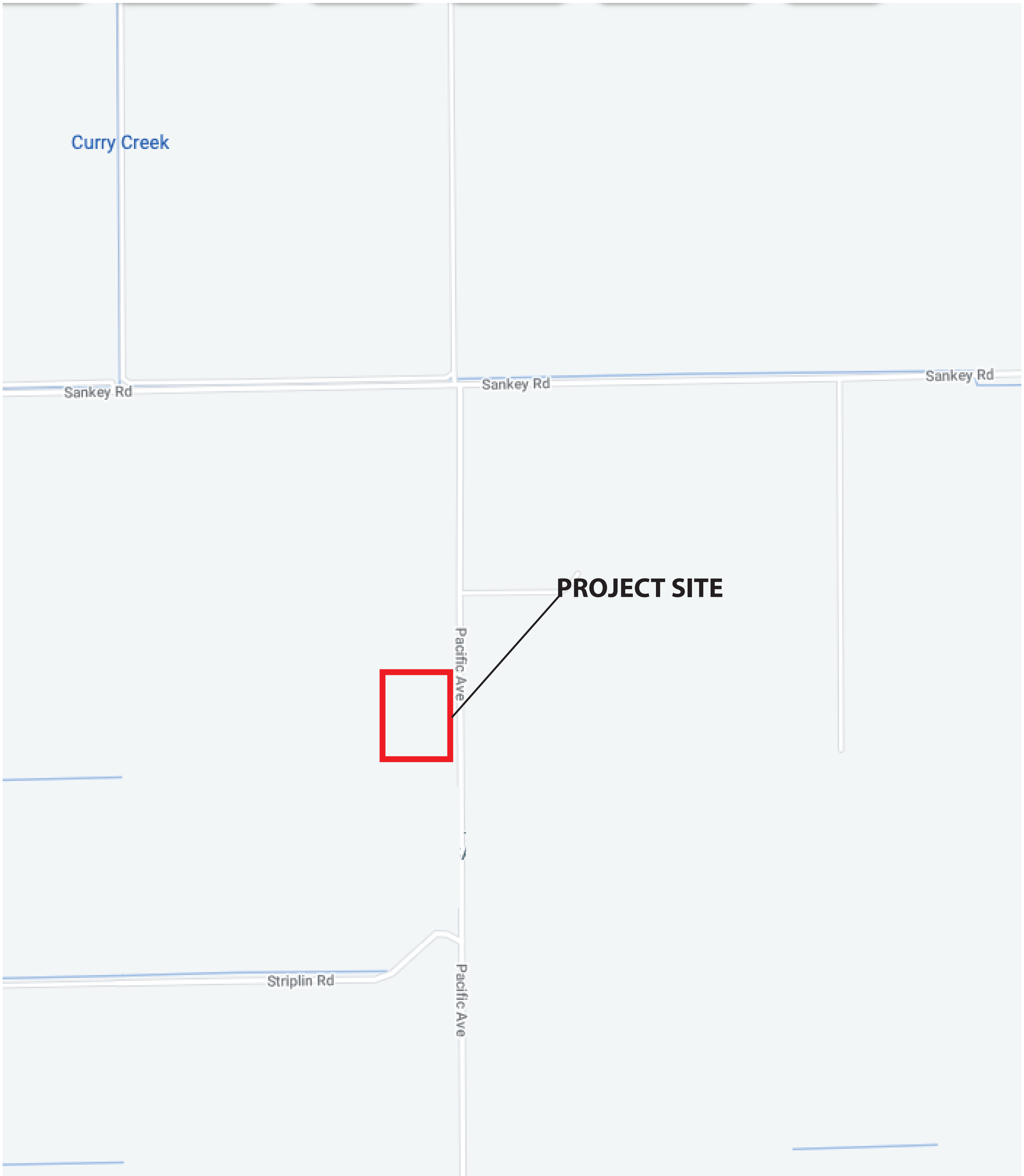
Figure 1-1
REGIONAL LOCATION MAP



SOURCE: Google Maps

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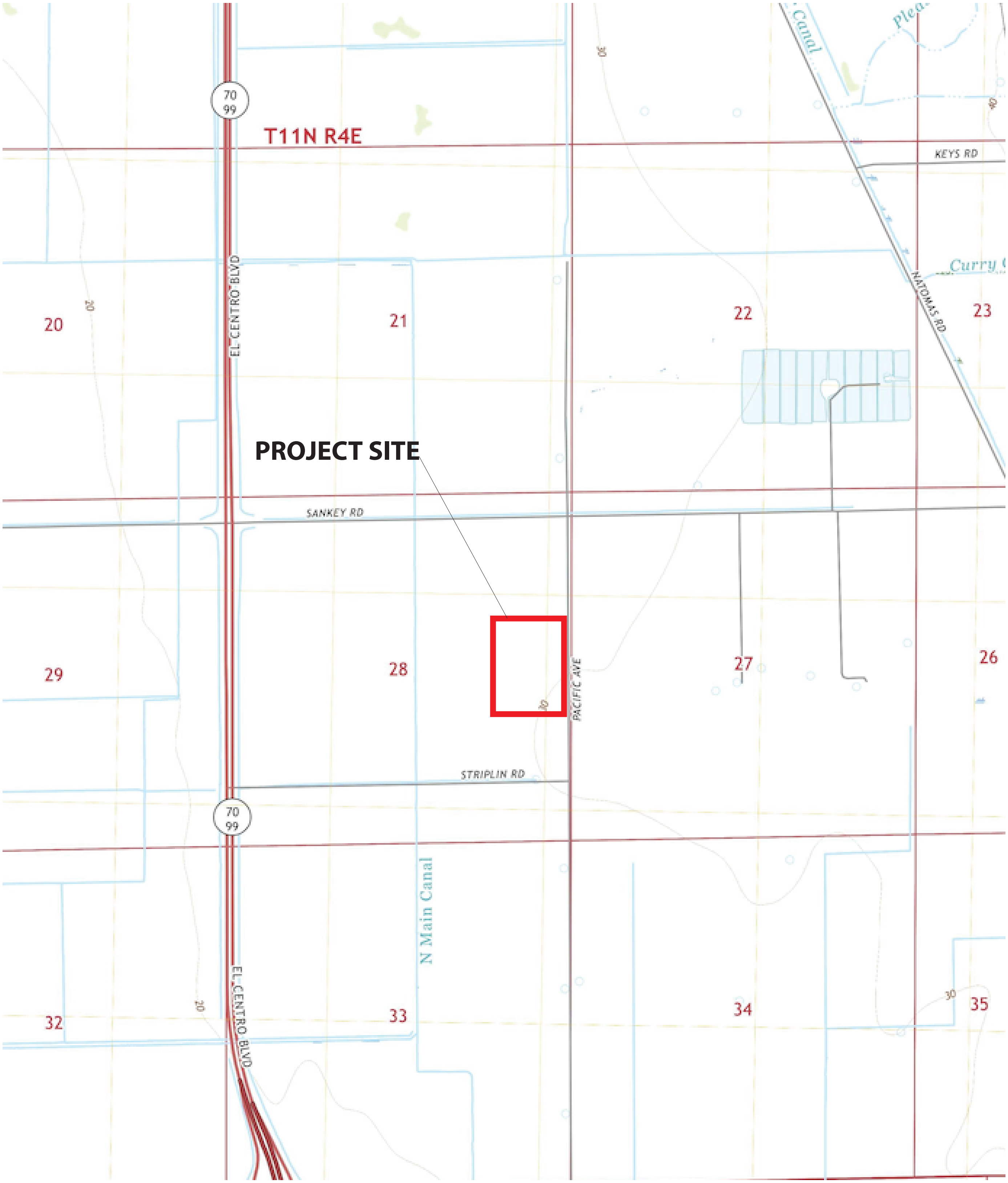
Figure 1-2
STREET MAP



SOURCE: USGS Quadrangle Map, Verona, CA 2022

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Figure 1-3
USGS MAP

SOURCE: Google Earth

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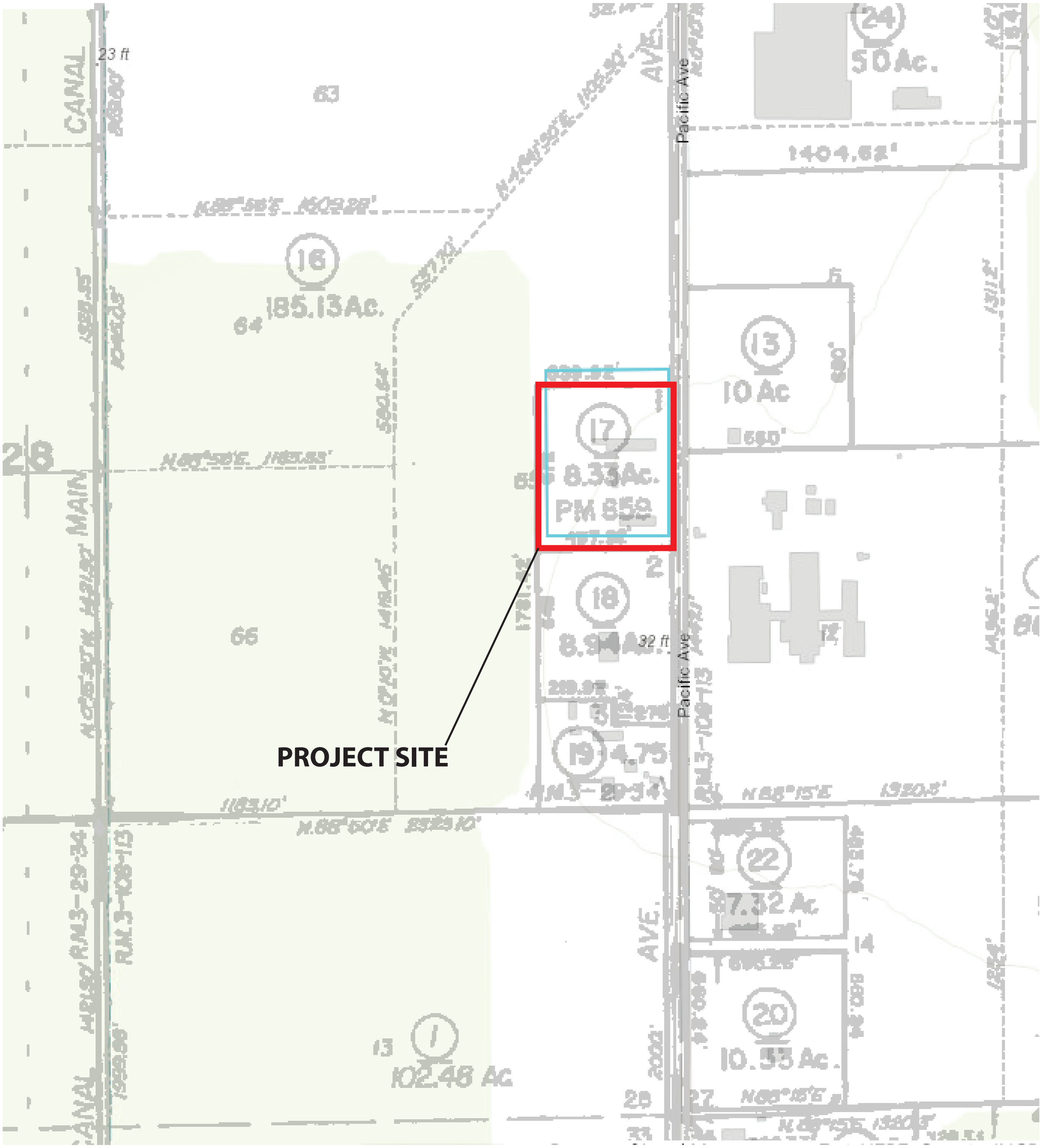
Figure 1-4
AERIAL PHOTO



SOURCE: Sutter County GIS sytem. Pleasent Grove California, 7235 Pacific Avenue.

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Figure 1-5
ASSESSOR PARCEL MAP

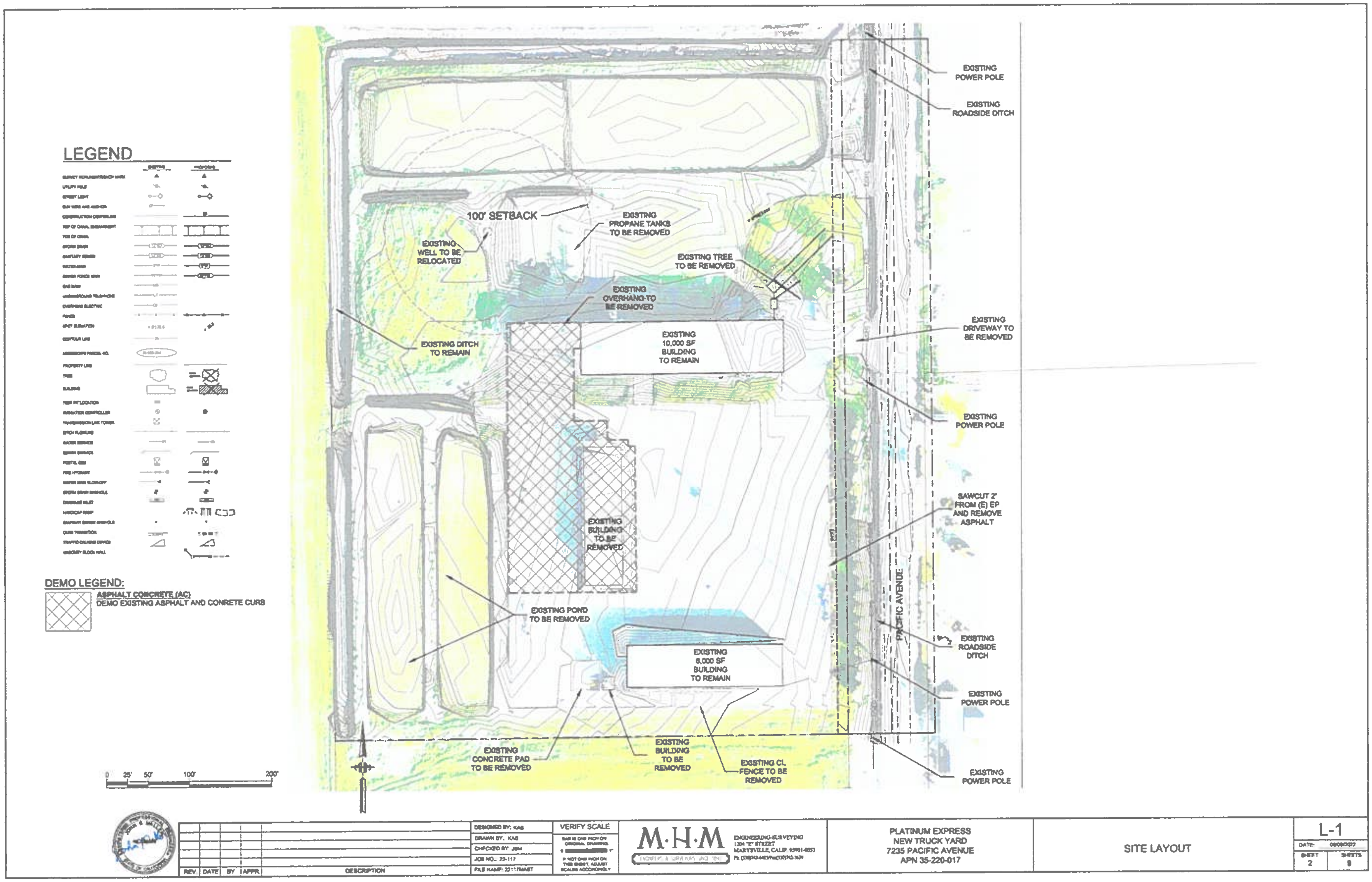

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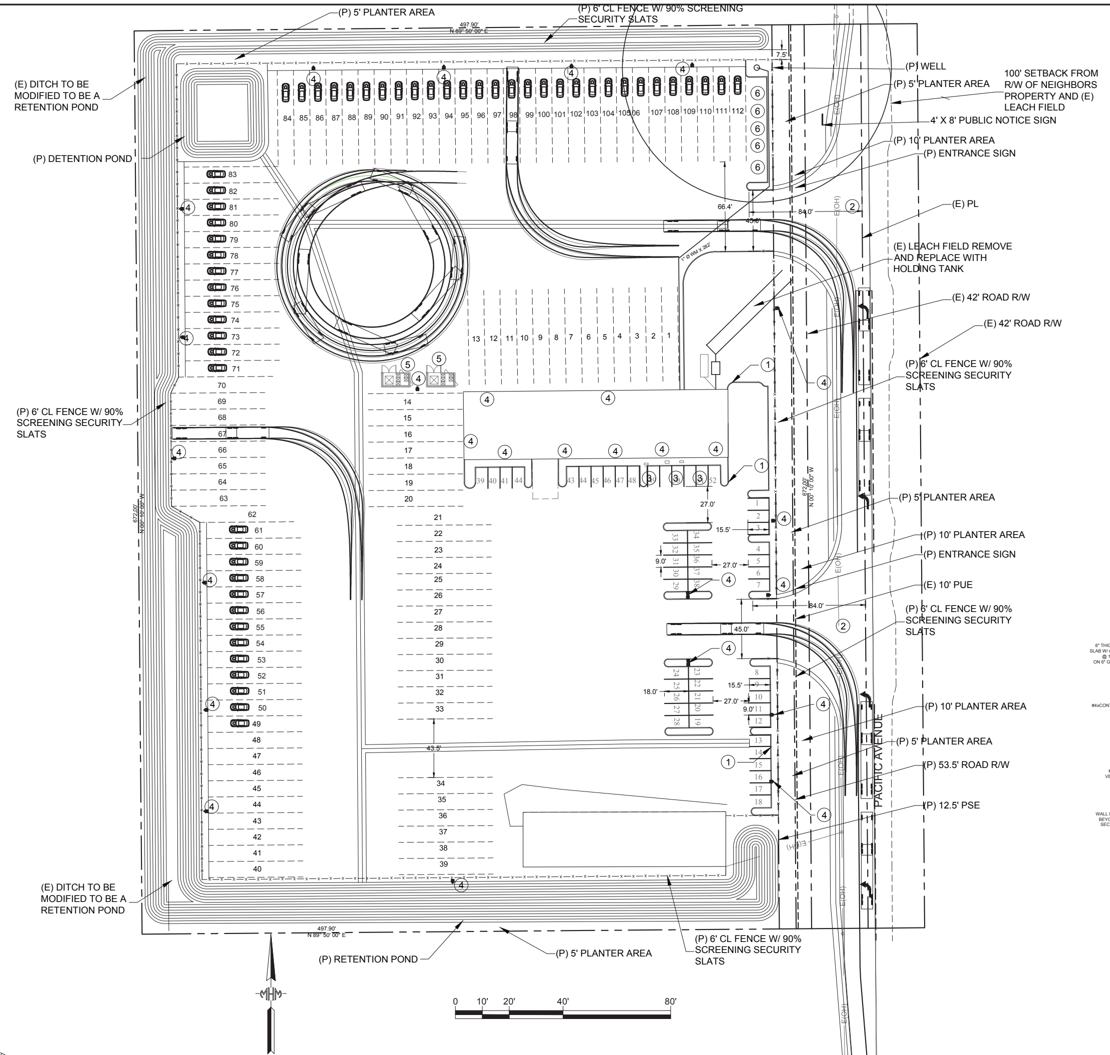
Figure 1-6
SITE PLAN



PARKING :

PROJECT PROVIDED:

REQUIRED NUMBER OF CAR PARKING STALLS = 30 TRUCKS / 1.5 + 2*16,000/1000 = 52

TOTAL NUMBER OF CAR PARKING STALLS = 52 STALLS (INCLUDING 3 ACCESSIBLE PARKING STALLS)

PARKING DIMENSIONS:

STANDARD STALL SIZE = 9' X 15.5' AND 9' X 18'

STALL DRIVE ISLE = 27'

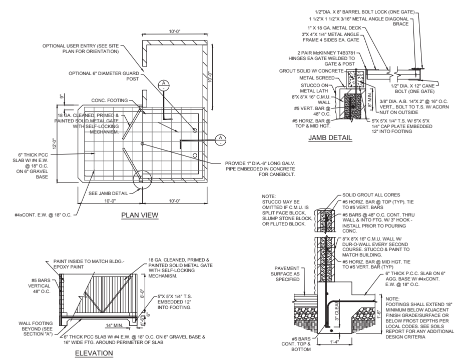
STANDARD TRUCK STALL SIZE = 12' X 70'

CURB STOPS USED AT BACK OF STALLS FOR TRUCK AND PASSENGER VEHICLES FOR PROTECTION OF FENCE, LANDSCAPING, AND BUILDINGS

TRUCK PARKING STALLS 49-61 AND 71-112 SHALL ALSO BE USED AS PASSENGER VEHICLE PARKING

CONSTRUCTION NOTES:

1. CONSTRUCT 6" PCC CURB PER COUNTY DETAIL H-2 ON SHEET C6
2. CONSTRUCT COMMERCIAL DRIVEWAY PER COUNTY DETAIL H-12 ON SHEET C6
3. ACCESSIBLE PARKING STALL
4. SITE LIGHTING
5. TRASH ENCLOSURE
6. BATHROOM TRAILER



TRASH ENCLOSURE DETAIL

REV.	DATE	BY	APPR.	DESCRIPTION	DESIGNED BY: KAS DRAWN BY: KAS CHECKED BY: JSM JOB NO.: 22-117 FILE NAME: 22117MAST	VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	M·H·M ENGINEERS & SURVEYORS SINCE 1892 ENGINEERING-SURVEYING 1204 "E" STREET MARYSVILLE, CALIF. 95901-0053 Ph: (530)742-6485 Fax(530)742-5639	PLATINUM EXPRESS NEW TRUCK YARD 7235 PACIFIC AVENUE APN 35-220-017	LAYOUT AND PAVEMENT DELINEATION PLAN	PD-1 DATE: 03/08/2023 SHEET 3 SHEETS 9

Figure 1-7
TRUCK PARKING AND CIRCULATION

CHECKLIST

I. AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				✓
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			✓	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			✓	

Responses:

a) **No impact.** This project would not have a substantial adverse effect on a scenic vista. The General Plan does not inventory any scenic vista on the subject property and there are no scenic vistas proximate to the project site. The General Plan Technical Background Report identifies geographic features such as the Sutter Buttes, Feather River, Sacramento River, and Bear River as scenic resources within the County. This project is not located within the Sutter Buttes Overlay Zone and is not located in the immediate vicinity of the Bear River, Feather River, or Sacramento River. As a result, this project would have no impact on scenic vistas.

b) **No impact.** The project site is already substantially developed. Therefore, this project would not substantially damage scenic resources, including, but not limited to, rock outcroppings, and historic buildings within a state scenic highway. One tree located northeast of the northern building is proposed to be removed, but this would not substantially affect the landscape. There are no state scenic highway designations in Sutter County. The project would have no impact on scenic resources.

c) **Less than significant impact.** The proposed project would be on a substantially developed site; therefore, it would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. The surrounding area is rural. While truck parking is not a typical land use associated with the area, the project would be consistent with activities in the area that use trucks, such as the light industrial development across Pacific Avenue from the project site.

The County's Zoning Code contains specific requirements for screening for large general truck yards proposed within the AG District (Zoning Code Section 1500-05-030 E.3.o.). These requirements specify that facilities shall be screened from view through concrete masonry unit walls or chain-link fencing with privacy slats, having a minimum privacy rating of 90 percent or greater and landscaping. The project proposes to comply with this requirement by using chain-link fencing with privacy slats. The Zoning Code also specifies that facilities shall comply with the applicable requirements of Table 1500-07-3 (Commercial and Employment Design Checklist), which includes requirements for landscaping and screening.

As described in the Project Description, a six-foot-high chain link fence with privacy slats having a 90 percent screening ability would be provided around the project site. Landscaping would include trees and shrubs planted along the Pacific Avenue frontage and along the northern, western, and southern site boundaries. Landscaping consisting of trees and shrubs also would be installed in the parking areas between the buildings proposed to be used for truck repair activities. Existing oleanders along the southeast corner of the site will remain to provide additional screening. The applicant has submitted a landscaping plan (see Appendix A) that demonstrates compliance with Zoning Code requirements for landscaping. All landscaping was selected from the County's Preferred Landscape Plant Materials List. Fencing and landscaping is required to be installed in accordance with the site plan and landscape plan prior to use of the site for truck and trailer and vehicle parking and shall be continuously maintained, which will be included as a proposed project condition. As this project complies with the design requirements of the Zoning Code, this project is not anticipated to substantially degrade the existing visual character or quality of the site or its surroundings. A less-than-significant impact is anticipated.

d) **Less than significant impact.** The project site has lighting on the exterior of the existing buildings, which are proposed to be removed and replaced with new ones to ensure lighting requirements are met. The project would add new lighting for the truck yard, proposing lighting poles throughout the parking areas.

The County's Zoning Code contains specific requirements for exterior lighting for large general truck yards proposed within the AG District (Zoning Code Section 1500-05-030 E. 3. d.). These requirements specify that light pole and fixture height shall not exceed 25 feet and that truck parking areas shall incorporate motion-activated lighting that shall not spill onto adjoining properties. These requirements also specify that exterior lighting shall be provided consistent with Zoning Code Table 1500-07-3 (Commercial and Employment Design Checklist). These requirements specify that luminaries be oriented and shielded to direct the light downward onto the property and not spill onto adjacent properties or road rights-of-way. The requirements also specify illumination requirements for parking lots and driveways and require that a point-by-point exterior lighting (photometric) plan be submitted to demonstrate compliance with the lighting standards. The applicant has submitted a photometric plan that demonstrates compliance with these requirements (see Appendix A).

As described in the Project Description, proposed lighting fixtures would not exceed 20 feet in height and lights would be motion-activated. Lighting would also be shielded to reduce indirect illumination of nearby properties. The photometric plan prepared for the project indicates no increase in illumination beyond the project site boundaries. Therefore, the project would comply with the Zoning Code requirements for lighting.

Outdoor lighting is required to be installed in accordance with the lighting plan prior to use of the site for truck/trailer and vehicle parking, which will be included as a proposed project condition. In addition, there are no land uses in the area that would be sensitive to changes in illumination levels. Agricultural fields are on three sides of the project site, and the fourth side has industrial activities that are not sensitive to changes in illumination levels. As a result, this project would not create a new source of substantial light or glare in this area. A less-than-significant impact is anticipated.

(Caltrans, California State Scenic Highways. 2022)

(County of Sutter, General Plan Technical Background Report. 2008)

(County of Sutter, Zoning Code. 2022)

II. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			✓	
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				✓
d) Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				✓

Responses:

a) **No impact**. This project site is already substantially developed. As shown on the 2018 Sutter County Important Farmland map, prepared by the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, the project site is designated as “Urban and Built-Up Land” and "Other Land." Therefore, the project would not convert existing Farmland to non-agricultural use. The project would have no impact on conversion of Farmland.

b) **Less than significant impact**. This project would not conflict with existing zoning for agricultural uses or a Williamson Act contract. The project site is zoned AG, but the AG zoning designation permits truck yards, such as the proposed project, with a use permit. The project site is not under a Williamson Act contract. A less-than-significant impact is anticipated.

c) **No impact.** This project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)), because the project site and surrounding area does not contain forest land. The project site is not zoned for forest land or timberland nor is it adjacent to land that is zoned for forest land or timberland. This project is located in the Sacramento Valley, a non-forested region. There would be no impact.

d) **No Impact.** This project would not result in the loss of forest land or conversion of forest land to a non-forest use because of its location within Sutter County. Sutter County is located on the valley floor of California’s Central Valley, and, as such, does not contain forest land. No impact is anticipated.

e) **No impact.** This project would not involve other changes to the existing environment which could result in the conversion of farmland to a non-agricultural use or conversion of forest land to a non-forest use. This project proposes a large general truck yard. Conflicts between the proposed project and nearby agricultural uses are not anticipated. Agricultural uses in the vicinity would continue. This project does not propose infrastructure or other features that would present an opportunity for the conversion of Farmland in the vicinity to non-agricultural use.

The Sutter Pointe Specific Plan, which covers the project site and surrounding area, has designated the project site for Employment land uses. The surrounding areas have been designated for either Employment or Medium Density Residential land uses. Therefore, existing agricultural lands in the vicinity are planned to be converted to urban uses in the future. The project is consistent with the Employment designation of the project site by the Sutter Pointe Specific Plan.

As noted in d), there is no forest land in Sutter County, so there would be no opportunity to convert forest land to non-forest use. Therefore, no impact regarding indirect conversion of Farmland or forest land is anticipated.

(California Dept. of Conservation, Farmland Mapping and Monitoring Program. 2018)

(County of Sutter, General Plan Draft Environmental Impact Report. 2008)

(County of Sutter, Zoning Code. 2022)

(County of Sutter, Sutter Pointe Specific Plan. 2009)

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?		✓		
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			✓	
c) Expose sensitive receptors to substantial pollutant concentrations?			✓	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			✓	

Responses:

a) **Less than significant with mitigation incorporated.** This project would not conflict with or obstruct implementation of an applicable air quality plan. Both the federal and State governments have established ambient air quality standards, based on their respective Clean Air Acts, for various air pollutants identified as “criteria” air pollutants. The federal Clean Air Act identifies six criteria pollutants: reactive organic gases (ROG), nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide, lead, and particulate matter less than 10 micrometers in diameter (PM10), a subset of which is particulate matter less than 2.5 micrometers in diameter (PM2.5). The California Clean Air Act identifies these six federal criteria pollutants, along with four others.

Under both Clean Air Acts, air basins are classified as being in “attainment” or “nonattainment” of these ambient air quality standards, or they are “unclassified”. Any air district that has been designated as a nonattainment area relative to federal and/or State ambient air quality standards for ozone, CO, sulfur dioxide or nitrogen dioxide is required to prepare and submit a plan for attaining and maintaining the standards for which it is in nonattainment.

The project site is within the boundaries of the Feather River Air Quality Management District (FRAQMD), which covers both Sutter and Yuba Counties. This project was circulated to the FRAQMD for review, and no comments were received. The FRAQMD area is either in attainment of or unclassified for all federal and State ambient air quality standards except for federal standards for ozone and PM10. Portions of Sutter County are also in nonattainment of State standards for ozone. The FRAQMD, in cooperation with other air districts in the northern Sacramento Valley, has prepared the Northern Sacramento Valley Planning Area Air Quality Attainment Plan for the attainment of State ozone standards. Plans have also been prepared for the attainment of federal ozone and PM10 standards.

To determine air quality impacts resulting from the proposed project, the applicant hired ESA to prepare an air quality analysis. A copy of this analysis is included as Appendix B to this Initial Study. The analysis describes existing air quality in the project area and the surrounding region, details the associated regulatory setting, and presents an analysis of potential impacts of air pollutant emissions from project construction and operation on air quality. The analysis assumed this project would provide spaces for 120 trucks and trailers and 109 spaces for passenger vehicles, which is more than the maximum number indicated in the Project Description. The analysis also assumed conservatively that 50 percent of the trucks parked on site would be TRUs, which is more than the maximum number of TRUs indicated in the Project Description.

The significance of the impacts was determined using emission thresholds established by FRAQMD for ROG and NOx, the main ingredients for ozone, as well as for PM10. Table 1 below shows the FRAQMD significance thresholds. These thresholds have been established only for the criteria pollutants for which FRAQMD is in nonattainment status.

TABLE 1
FRAQMD SIGNIFICANCE THRESHOLDS AND PROJECT EMISSIONS

	ROG	NO_x	PM_{10}
Significance Thresholds (pounds/day)[1]	**25**[2]	**25**[2]	**80**
Construction Emissions (pounds/day)	9.21	14.75	2.52
Exceeds threshold?	*No*	*No*	*No*
Operational Emissions (pounds/day)	2.69	6.60	7.08
Exceeds threshold?	*No*	*No*	*No*

[1] Applies to both construction and operational emissions.
[2] Construction emissions not to exceed 4.5 tons per year.

Short-Term Construction Impacts

Construction activities for the proposed project would emit criteria air pollutants from the use of construction equipment, worker trips, vendor trips, and hauling truck trips. Emissions of ozone precursors (ROG and NOx) are primarily generated by mobile sources and largely vary as a function of vehicle trips per day and the type, quantity, intensity, and frequency of heavy-duty, off-road equipment used. Construction-related fugitive dust emissions of PM10 would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather.

As part of the air quality analysis for the project, construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version 2020.4.0 and the EMFAC2021 on-road emission model. Estimated construction emissions for the proposed project are reported and compared to the FRAQMD thresholds of significance in Table 1 above. As shown in Table 1, emissions of NOx, ROG, and PM10 generated during construction of the proposed project would not exceed FRAQMD thresholds of significance. Therefore, project construction activities would not interfere with the implementation of air quality attainment plans for ozone or PM10. Project construction impacts on air quality would be less than significant.

Long-Term Operational Impacts

The proposed project would result in long-term operational emissions, predominantly from on-road trucks, TRUs, passenger vehicles, and a backup diesel generator. The air quality analysis estimated project operational emissions using CalEEMod, EMFAC2021 emission factors, OFFROAD2021 emission factors, and U.S. Environmental Protection Agency (EPA) AP-42 emission factors. The results of this analysis are summarized and compared to the FRAQMD operational thresholds of significance in Table 1 above. As shown in Table 1, total project operational emissions would not exceed the FRAQMD thresholds of significance for emissions of ROG, NOx, or PM10. Therefore, project operations would not interfere with the implementation of air quality attainment plans for ozone or PM10.

Since the proposed project has an operational phase, the project is characterized by FRAQMD as a Type 1 project. According to the FRAQMD indirect source review guidelines, if operational emissions of a Type 1 project do not exceed the thresholds of significance, it is recommended that the project proponent implement the Standard Mitigation Measures. These include the implementation of a Fugitive Dust Control Plan to control dust emissions during construction activities. The project would implement the following mitigation measure, which requires the application of the FRAQMD Standard Mitigation Measures.

> **Mitigation Measure No. 1 (Air Quality):** IMPLEMENT FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT (FRAQMD) STANDARD MITIGATION MEASURES. The project applicant shall implement the following FRAQMD-recommended Standard Mitigation Measures for projects that do not exceed construction or operational thresholds of significance.
>
> - Implement the Fugitive Dust Control Plan prior to any on-site grading, landscaping, or construction activities. The applicant shall submit the fugitive dust control plan to the FRAQMD for review and approval. A copy of the approved plan shall be submitted to the Development Services Department.
> - Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions limitations (40 percent opacity or Ringlemann 2.0).
> - The contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation.
> - Limit idling time to 5 minutes – saves fuel and reduces emissions in accordance with 13 California Code of Regulations (CCR) Chapter 10 Section 2485 and 13 CCR Chapter 9 Article 4.8 Section 2449.
> - Utilize existing power sources or clean fuel generators rather than temporary power generators during construction.

- Develop traffic plans to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.

- Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require CARB Portable Equipment Registration with the State or a local district permit. The owner/operator shall be responsible for arranging appropriate consultation with CARB or FRAQMD to determine registration and permitting requirements prior to equipment operation at the site.

With implementation of the above referenced mitigation measures, the project would not generate emissions above FRAQMD's thresholds of significance for construction and operational activities. A less-than-significant impact on air quality plans is anticipated.

b) **Less than significant impact.** The focus of the analysis is related to the ground-level ozone and PM10, for which FRAQMD is in non-attainment. PM2.5, CO, and SO2 were not components of the analysis, since FRAQMD does not have numerical thresholds of significance for these pollutants, and in any case, FRAQMD is in attainment of standards for these pollutants. This project's cumulative impacts regarding air quality are discussed in the Mandatory Findings of Significance Section of this checklist.

Neither construction nor operation of the proposed project would generate emissions that would exceed the FRAQMD thresholds of significance, and the project would implement the FRAQMD recommended Standard Mitigation Measures. Therefore, the project would not result in a significant net increase of criteria air pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard. A less-than-significant impact is anticipated.

c) **Less than significant impact.** This project would not expose sensitive receptors to substantial pollutant concentrations. The nearest potential sensitive receptor is a rural residence approximately 950 feet south of the project site on Pacific Avenue. In addition, land approximately 625 feet west of the project site that is currently used for agriculture has been designated for future Medium Density Residential use by the Sutter Pointe Specific Plan.

As discussed in a) above, project construction and operational emissions would not exceed FRAQMD significance thresholds. As such, the nearby sensitive receptor would not be exposed to substantial amounts of pollutant emissions, especially with implementation of Mitigation Measure No. 1.

The project would generate emissions of diesel particulate matter (DPM), which is considered a toxic air contaminant that could lead to increased cancer risk with prolonged exposure. DPM emissions would be generated by the operation of off-road construction equipment (e.g., excavators, loaders, cranes, graders) and on-road diesel heavy-duty vehicles. The air quality analysis for the project (see Appendix B) included a health risk assessment that evaluated the potential health risks to the nearby residences and future residences of the estimated DPM operational emissions. Construction DPM emissions were not considered, as these emissions would occur for less than two months and measurable health risks from DPM emissions occur only with prolonged exposure.

DPM emissions were estimated using CalEEMod and EMFAC2021 and OFFROAD2021 emission factors, along with the AERSCREEN dispersion model. Toxic air contaminant emissions are considered significant if the emissions lead to a cancer risk of 10 cancers per million people. This is a threshold used by several air quality agencies in California. The air quality analysis found that the cancer risk for the nearby residence would be approximately 9.3 per million and the cancer risk for the nearest future residences would be 7.0 per million. Both results are below the significance threshold for cancer risk. The Non-Cancer Hazard Index at 0 to 100 meters would be 0.0011, also well below the significance threshold.

In summary, construction and operational emissions from the proposed project would not generate substantial criteria pollutant emissions, nor would the project generate DPM emissions that would pose a substantial health risk to nearby sensitive receptors, both existing and future. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations, and the impact is considered less than significant.

d) **Less than significant impact.** This project would not result in other emissions, such as those leading to odors, adversely affecting a substantial number of people. FRAQMD has identified various types of facilities that are known sources of odors, including wastewater treatment plants, sanitary landfills, painting/coating operations, food processing facilities, and green waste and recycling operations. The proposed project would not include operation of any of these types of odor-generating facilities. Therefore, the project would not be anticipated to generate odors that would affect a substantial number of people, and the impact would be less than significant.

(ESA, Draft Platinum Trucking Truck Yard Study Technical Report. 2022)

(Feather River Air Quality Management District, Indirect Source Review Guidelines. 2010)

(County of Sutter, General Plan 2030. 2011)

IV. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			✓	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				✓

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			✓	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			✓	

Responses:

a) **Less than significant impact.** This project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). The Specific Plan EIR assessed the presence of special-status species in the South Pointe Specific Plan area, which includes the project site. The results indicate no candidate, sensitive, or special-status species potentially occurring on the project site. The nearest special-status species habitat identified is a burrowing owl area located south of the project site. The project would not affect this area.

According to the current California Natural Diversity Database data, there are no candidate, sensitive, or special-status species identified as potentially occurring onsite or in the immediate area due to lack of suitable habitat. This includes Swainson's hawk, a species listed as threatened under the California Endangered Species Act that may use agricultural fields as foraging habitat but also requires taller trees for nesting. In addition, the USFWS Critical Habitat Mapper indicated no critical habitat for any species listed under the federal Endangered Species Act within the project site and vicinity.

Sites that have been used agriculturally and that have been developed are generally of limited use to wildlife due to the level of disturbance and lack of native plant species or habitat. The project site has been developed, and agricultural and other developed lands are in the vicinity. There are no waterways or wetlands on the project site or in the project vicinity that may provide habitat for listed species. The uses occurring in the area are not conducive for wildlife to locate within the project site, and none have been inventoried. The County had requested comments from CDFW on the project but received no response. Therefore, a less-than-significant impact is anticipated.

b) **No impact.** This project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. There are no streams or rivers on the project site or in the immediate vicinity. No riparian habitat or other sensitive natural community exists onsite or near the property. The site is surrounded by agricultural and developed land. Therefore, no impact is anticipated.

c) **No impact.** This project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other. As noted, there are no streams or rivers in the vicinity, and the project site has been mostly developed with existing buildings and paved areas. No wetlands were identified on the project site by the National Wetlands Inventory of the USFWS. Therefore, no impact is anticipated.

d) **Less than significant impact.** This project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of a native wildlife nursery site because the area is predominantly rice. The project is not anticipated to significantly interfere with wildlife movement since the site is mostly developed and is surrounded by active agricultural operations that discourage wildlife movement. The property is not located near any rivers or streams that would provide fish movement corridors. Only ornamental trees are in the project vicinity, which are not considered desirable nesting sites for migratory birds, particularly since the Sacramento River riparian area is west of the project site. A less-than-significant impact is anticipated.

e) **No impact.** This project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, because Sutter County has not adopted such policies or ordinances. General Plan Policy ER 3.7 is in place to preserve native oak trees when possible through review of discretionary development projects and activities. There are no oak trees located on the project site. There would be no impact.

f) **Less than significant impact.** The proposed project is within the boundaries of the Natomas Basin Habitat Conservation Plan, adopted in 1997 and revised in 2003. This habitat conservation plan covers southern Sutter County and northern Sacramento County. establishes a multi-species conservation program to minimize and mitigate the expected loss of habitat values and incidental take of covered species that could result from urban development and from operation and maintenance of irrigation and drainage systems. The program includes conservation measures designed to minimize impacts on wetland and upland habitats and on covered species.

As noted above, the project is unlikely to have an impact on species and habitat covered by the Natomas Basin Habitat Conservation Plan. Nevertheless, the project is expected to comply with the requirements of the plan, including payment of fees and implementation of measures identified by the Natomas Basin Conservancy. No other habitat conservation plans are applicable to the project site. Project impacts related to habitat conservation plans would be less than significant.

(California Department of Fish and Wildlife, California Natural Diversity Database. 2022)

(City of Sacramento et al., Final Natomas Basin Habitat Conservation Plan, 2003)

(County of Sutter, General Plan Technical Background Report. 2008)

(County of Sutter, Sutter Pointe Specific Plan EIR. 2009)

(U.S. Fish and Wildlife Service, Critical Habitat Mapper, 2022)

(U.S. Fish and Wildlife Service, National Wetlands Inventory, 2022)

V. CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?				✓
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		✓		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?		✓		

Responses:

a) **No impact.** The proposed project would not cause a substantial adverse change in the significance of a historical resource or pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15064.5. In Section 4.6 of the General Plan Technical Background Report, Figure 4.6-1 does not list the property as being a historic site. The site is not listed on the National Register of Historic Places. There are no unique features or historical resources located on the project site.

Solano Archaeological Services prepared a technical memorandum, dated January 3, 2023, that evaluated the presence of cultural resources on the project site, based on records searches and a field survey. This memorandum is available in Appendix C of this IS/MND. Archival research and the field survey did not identify any prehistoric or historic-period cultural resources within the project site and that no developments of any kind occurred on the project site at least until the late 1960s or later. Due to a lack of identified cultural resources and sensitive landforms, the memorandum concluded that the proposed project would have no impact on historical resources.

b) **Less than significant with mitigation incorporated.** The project site is not located within the vicinity of the Bear River, Sacramento River, or Feather River, where archaeological resources are more likely to occur. Solano Archaeological Services prepared a technical memorandum that evaluated the presence of cultural resources on the project site, based on records searches and a field survey. This memorandum is available in Appendix C of this IS/MND. Archival research and the field survey did not identify any prehistoric or historic-period cultural resources within the project site and that no developments of any kind occurred on the project site at least until the late 1960s or later.

Since the project site has been disturbed by development, it is unlikely that any intact cultural resources exist. Nevertheless, it is conceivable that archaeological resources could be encountered during project construction. To mitigate potential impacts, a mitigation measure is proposed to prevent disturbance of human remains should they be encountered.

> **Mitigation Measure No. 2 (Cultural Resources):** If archaeological resources are discovered on the project site, potential ground disturbing activities within 100 feet of the find shall be halted immediately and the Development Services Department shall be notified. A qualified archaeologist shall examine the find and evaluate its significance. The archaeologist shall recommend measures needed to reduce effects on the cultural resource in a written report to the County. The County shall be responsible for implementing the report recommendations.

c) **Less than significant with mitigation incorporated.** The proposed project is not expected to disturb any human remains, including those interred outside of dedicated cemeteries. The property is not located near a cemetery. The project site is not located within the vicinity of the Bear River, Sacramento River, or Feather River, where burials are more likely to occur. However, although unlikely, it is conceivable that human remains may be encountered during project construction ground disturbing activities.

California Health and Safety Code §7050.5 states that when human remains are discovered, no further site disturbance can occur until the County Coroner has made the necessary findings as to the origin of the remains and their disposition pursuant to Public Resources Code Section 5097.98. If the remains are recognized to be those of a Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours. Section 5097.98 further states that whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, it shall immediately notify the most likely descendant from the deceased Native American. The descendants may inspect the site and recommend to the property owner a means for treating or disposing of the human remains. If the NAHC cannot identify a descendant, or the descendant identified fails to make a recommendation, or the landowner rejects the recommendation of the descendant, the landowner shall rebury the human remains on the property in a location not subject to further disturbance.

To mitigate potential impacts, a mitigation measure is proposed to prevent disturbance of human remains should they be encountered.

> **Mitigation Measure No. 3 (Cultural Resources):** If human remains are discovered on the site potentially ground disturbing activities within 100 feet of the remains shall be halted immediately, and the project applicant shall notify the Sutter County Coroner and Native American Heritage Commission (NAHC) immediately, according to Public Resources Code §5097.98 and Section 7050.5 of California's Health and Safety Code. If the remains are determined by the NAHC to be Native American, the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project applicant shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. Following the coroner's and NAHC's findings, the archaeologist, and the NAHC-designated Most Likely Descendant shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in Public Resources Code Section 5097.94.

(County of Sutter, General Plan Technical Background Report. 2008)

(National Park Service, National Register of Historic Places. 2021)

(Solano Archaeological Services, Cultural Resources Investigation. 2023)

VI. ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?			✓	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			✓	

Responses:

a-b) **Less than significant impact.** The proposed project would not result in a 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. This project proposes a truck yard that would provide truck and automobile parking. No new buildings that would utilize energy are proposed; in fact, one of the existing buildings would be removed.

Overall, the project would not require the creation of a new substantial source of energy generation. Construction of the parking area would require the consumption of diesel and gasoline to power construction equipment and delivery trucks. However, project construction would be limited to less than two months. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency, combined with state regulations limiting engine idling times, would further reduce transportation fuel demand during project construction. There are no unusual construction processes that would be more energy-intensive than are used for comparable activities, and no equipment would be used that would not conform to current emissions standards and related fuel efficiencies. For these reasons, it is expected that fuel consumption associated with project construction would not be any more inefficient, wasteful, or unnecessary than similar development projects of this nature within Sutter County.

Proposed outdoor lighting at the project site would use minimal energy. Lights would be LED fixtures on poles and would be operated by motion-activated sensors to minimize energy use. Lighting would be required to comply with the energy requirements of the State Building Codes, including the California Energy Code (Part 6 of Title 24) related to lighting design and installation, luminaire, and lighting controls. The energy efficiency standards of the State of California are some of the most stringent in the nation. As a result, the project would not result in a wasteful, inefficient, or unnecessary consumption of energy resources, and a less-than-significant impact is anticipated.

VII. GEOLOGY AND SOILS

Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				✓
ii) Strong seismic ground shaking?			✓	
iii) Seismic-related ground failure, including liquefaction?			✓	
iv) Landslides?				✓
b) Result in substantial soil erosion or the loss of topsoil?		✓		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			✓	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			✓	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?			✓	
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✓	

Responses:

a-i) **No impact.** This project would not directly or indirectly cause potential substantial adverse effects from rupture of a known earthquake fault, because the subject property is not located in an Alquist-Priolo Earthquake Fault Zone and would involve minor grading activities that would not exacerbate existing seismic hazards in the region. No impact is anticipated.

a-ii,-iii) **Less than significant impact.** This project would not directly or indirectly cause potential substantial adverse effects from strong seismic ground shaking or seismic-related ground failure, including liquefaction. Figure 5.1-1 in the General Plan Technical Background Report does not identify any active earthquake faults in Sutter County as defined by the California Mining and Geology Board. The faults identified in Sutter County include Quaternary faults in the northern section of the County within the Sutter Buttes and a pre-Quaternary fault in the southeastern corner of the County just east of where Highway 70 enters the County. Although both faults have the potential for seismic activity, they are listed as inactive faults. Therefore, the potential for earthquakes or liquefaction is unlikely, and a less-than-significant impact is anticipated.

a-iv) **No impact.** This project would not directly or indirectly cause potential substantial adverse effects from landslides. The project site is relatively level with no significant slope. In addition, the project is not located in the Sutter Buttes, the only area identified by the General Plan Technical Background Report as having landslide potential. Therefore, the potential for landslides is unlikely, and no impact is anticipated.

b) **Less than significant with mitigation incorporated.** This project would not result in substantial soil erosion or the loss of topsoil. According to the United States Department of Agriculture (USDA) Soil Conservation Service Soil Survey of the County, on-site soils consist of two types:

- Capay clay, hardpan substratum, 0 to 2 percent slopes. This soil underlies approximately one-quarter of the project site, mainly in the northern and western portions. Capay clay is unlikely to be susceptible to erosion, because runoff is slow and the hazard of water erosion is slight.

- San Joaquin sandy loam, 0 to 2 percent slopes. This soil underlies the remainder of the project site. San Joaquin sandy loam is unlikely to be susceptible to erosion, because runoff is very slow and the hazard of water erosion is slight.

The General Plan Technical Background Report indicates that soils with a 0 to 9 percent slope, which includes both soil types mentioned above, have only slight erodibility. However, site grading and other ground disturbing activities have the potential to result in soil erosion due to loosened soils.

Since the project size is more than one acre, the applicant is required to obtain a National Pollution Discharge Elimination System (NPDES) General Construction Permit through the Regional Water Quality Control Board (RWQCB). Construction General Permit requirements include preparation of a Storm Water Pollution Prevention Plan (SWPPP) to ensure that soil is not released in storm water from the project site. To ensure that a less-than-significant impact occurs, the following mitigation measure is included, based on comments from the Development Services Engineering Division.

> **Mitigation Measure No. 4 (Geology and Soils):** STORM WATER QUALITY PROTECTION – DURING CONSTRUCTION.
>
> SWPPP - Prior to the start of construction, the applicant shall prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to be executed through all phases of grading and project construction. The SWPPP shall incorporate Best Management Practices (BMPs) to ensure that potential water quality impacts during construction phases are minimized. These measures shall be consistent with the County's Improvement Standards and Land Grading and Erosion Control Ordinance and the requirements of the National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. The SWPPP shall be submitted to the County for review and to the Central Valley Regional Water Quality Control Board (RWQCB) as required by the NPDES General Permit in effect during

construction. During construction, the applicant shall implement actions and procedures established to reduce the pollutant loadings in storm drain systems. The project applicant shall implement BMPs in accordance with the SWPPP and the County's Improvement Standards. The project applicant(s) shall submit a state storm water permit Waste Discharger Identification (WDID) number for each construction project.

NPDES GENERAL CONSTRUCTION PERMIT – Since the project size is more than one acre, prior to construction the applicant shall file a Notice of Intent (NOI) with the Central Valley RWQCB to obtain coverage under the California State Water Resources - General Construction Activity Storm Water Permit. Permits are issued by the State Water Resources Control Board, which can provide all information necessary to complete and file the necessary documents. Applicant shall comply with the terms of the General Construction Permit, the County's ordinances, and the NPDES Waste Discharge Requirements for the Sutter County Phase II NPDES Permit.

c) **Less than significant impact.** This project is not located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. As stated above in b), soils at the site have a 0 to 2 percent slope with only a slight hazard of water erosion. The General Plan Technical Background Report indicates that soils with a 0 to 9 percent slope have slight erodibility. Also, as stated in a-iv), the project site has no landslide potential. A less-than-significant impact is anticipated.

d) **Less than significant impact.** According to the USDA Soil Conservation Service Soil Survey of the County, both Capay clay and San Joaquin sandy loam have a high shrink-swell potential, although the latter soil varies more in its potential. If not addressed, these soils have the potential to cause damage to the proposed pavement and infrastructure.

No buildings would be constructed as part of the project that would require foundations or specific design to address expansive soils. Project construction would be required to comply with the adopted California Building Code, specifically Chapter 18 for soils conditions to address potentially expansive soils. The project would result in development of a truck yard for parking. With implementation of California Building Code requirements, a less-than-significant impact is anticipated.

e) **Less than significant impact.** An existing septic system and leach field is adjacent to the northern building, which is proposed to be removed and replaced with an onsite holding tank. The County Environmental Health Division had no comment regarding the existing septic system; however, the County Environmental Health Division stated that portable, trailer-mounted restrooms with handwashing stations shall be provided. These restrooms shall be self-contained and be serviced as necessary by a septic pumper registered with the County. The project would provide these restrooms pursuant to the requirements of the County Code and consistent with Environmental Health Division recommendations. Impacts related to adequacy of soils for wastewater disposal would be less than significant.

f) **Less than significant impact.** The proposed project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. There are no known unique paleontological resources or unique geologic features located in the vicinity of the project. Implementation Program ER 8-D for Policy ER 8.2 in the County General Plan requires that when paleontological resources are encountered, all work within 100 feet of the discovery shall be stopped and the area protected from further disturbance until the discovery is evaluated. The appropriate County personnel shall be notified immediately. The resource shall be examined by qualified personnel in accordance with Society of Vertebrate Paleontology guidelines to determine their significance and to develop appropriate protection and preservation measures. A less-than-significant impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

(USDA Soil Conservation Service, Sutter County Soil Survey. 1988)

(USDA Natural Resources Conservation Service, Custom Soil Survey, Sutter County. 2022)

VIII. GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

Responses:

a) **Less than significant impact.** This project would not generate additional greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment. The Sutter County Climate Action Plan (CAP) was prepared and adopted in 2010 as part of the General Plan to ensure compliance with AB 32, also known as the Global Warming Solutions Act. Sutter County's CAP includes a GHG inventory, an emission reduction target, and reduction measures to reach the target. The CAP also includes screening tables used to assign points for GHG mitigation measures. Projects that achieve 100 points or more do not need to quantify GHG emissions and are assumed to have a less-than-significant impact. Sutter County's screening tables apply to all project sizes.

Small projects with little or no proposed development and minor levels of GHG emissions typically cannot achieve the 100-point threshold. Since the adoption of the CAP, further analysis to determine if a project can be too small to provide the level of GHG emissions reductions expected from the screening tables or alternative emissions analysis methods has been performed. In June 2016, Sutter County adopted new GHG Pre-Screening Measures to be applied to new projects. Sutter County has concluded that projects generating less than 3,000 metric tons of carbon dioxide equivalent (CO_2e) would not require further GHG emissions analysis and are assumed to have a less-than-significant impact.

The air quality analysis prepared by ESA for the project (see Appendix B) estimated GHG emissions using CalEEMod and the EMFAC2021 and OFFROAD2021 factors. The results indicate that project construction GHG emissions would be 54.7 metric tons CO_2e for the construction period, and project operational GHG emissions would be 1,686.9 metric tons CO_2e per year. Both figures are below the County threshold of 3,000 metric tons CO_2e per year. Other emission sources, such as lighting, would contribute only minimal GHG emissions. Based on this evaluation, the project would not generate GHG emissions that would have a significant impact on the environment. A less-than-significant impact is anticipated.

b) **Less than significant impact**. This project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. As noted, Sutter County has adopted a CAP that screens projects based on a threshold of 3,000 metric tons CO_2e per year. As noted in a) above, this project would not generate either construction or operational emissions that exceed this threshold. Therefore, this project would be consistent with the County CAP. A less-than-significant impact is anticipated.

(ESA, Draft Platinum Trucking Truck Yard Study Technical Report. 2022)

(County of Sutter, General Plan Technical Background Report. 2008)

(County of Sutter, General Plan 2030 Climate Action Plan. 2011)

(County of Sutter, Greenhouse Gas Pre-Screening Measures for Sutter County. June 28, 2016.)

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			✓	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public-use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				✓
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			✓	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			✓	

Responses:

a-b) **Less than significant impact.** This project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or the creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The project is a truck parking area; therefore, it is not expected to use or discharge hazardous materials. The only hazardous materials of concern are small-scale fuel and oil discharges from vehicles. These deposits are minor and can be contained by a storm drainage system that would be in accordance with County requirements (see Section X, Hydrology and Water Quality).

Project site activities that would transport hazardous materials would be required to do so in compliance with applicable local, state, and federal regulations. These include the federal Resource Conservation and Recovery Act hazardous substance “cradle-to-grave” regulatory program that applies to transportation of hazardous materials, U.S. Department of Transportation regulations on the interstate transport of hazardous materials and wastes, and regulations of the state Department of Toxic Substances Control related to the transport of hazardous materials and waste.

The Development Services Environmental Health Division is the Certified Unified Program Agency (CUPA) for Sutter County, with responsibility for monitoring all uses involving the storage and handling of hazardous materials. Any business that uses, generates, processes, produces, treats, stores, emits, or discharges a hazardous material in quantities at or exceeding 55 gallons, 500 pounds, or 200 cubic feet (compressed gas) at any one time in the course of a year are required to submit a Hazardous Materials Business Plan. The primary purpose of the plan is to provide readily available information regarding the location, type, and health risks of hazardous materials to emergency response personnel, authorized government officials, and the public. The project may store hazardous materials as part of its truck repair activities; the project would submit a Hazardous Materials Business Plan if the amount stored meets requirements. In its comments, the County CUPA stated that to obtain the CUPA permit, a Hazardous Materials Business Plan must be submitted to the California Environmental Reporting System.

All activities and uses must comply with State and County laws and regulations pertaining to the handling and disposal of all hazardous or acutely hazardous materials. The discharge of fuels, oils, other petroleum products, detergents, cleaners, chemicals, or compost materials to the surface of the ground or to drainage ways on or adjacent to the site is prohibited. The State of California has adopted U.S. Department of Transportation regulations for the movement of hazardous materials originating within the state and passing through the state; State regulations are contained in CCR Title 26. Compliance with these regulations is anticipated to result in a less-than-significant impact.

c) **No impact.** This project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The closest school is Pleasant Grove Elementary School, approximately 3.75 miles northeast of the project site.

The Sutter Pointe Specific Plan, which covers the project site, proposes various types of development, including schools. However, no schools are currently proposed in the vicinity. The Land Use Map for the Specific Plan indicates a potential site that appears more than one-half mile away from the project site. At that distance, any future school constructed would not be exposed to any releases of hazardous materials on the project site. No impact is anticipated.

d) **No impact.** This project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5. The project site has existing aboveground propane tanks that would be removed as part of the project. There are no reports of contamination associated with these propane tanks.

The Holt facility on Pacific Avenue, across the project site, had groundwater contamination resulting from leaking underground storage tanks. The tanks were all removed by 1992. However, the GeoTracker database, maintained by the State Water Resources Control Board, indicates that all action on this site has been completed and the case is closed. Both the GeoTracker and EnviroStor databases - the latter maintained by the California Department of Toxic Substances Control - have no record of any active hazardous material sites within one mile of the project site.

Based on the information above, the project would not create a hazard to the public or the environment, nor would it expose people on the project site to any hazards. Therefore, no impact is anticipated.

e) **No impact**. The nearest public airport to the project site is Sacramento International Airport, approximately 5.5 miles to the southwest. This project is located within the Airport Influence Area of the Sacramento International Airport Comprehensive Land Use Plan (ALUCP), which would typically require the project to be reviewed by the appropriate Airport Land Use Commission. For Sacramento International Airport, the Commission would be the Sacramento Area Council of Governments (SACOG).

However, the ALUCP also places the project site within Referral Area 2. Referral Area 2 includes areas where airspace protection and/or overflight are compatibility concerns, but not noise or safety. Only projects with any proposed object having a height that requires review by the Federal Aviation Administration, the potential to create electrical or visual hazards to aircraft in flight, or the potential to create a thermal plume extending to an altitude where aircraft fly would be subject to Airport Land Use Commission review. The project does not meet any of these conditions. Moreover, the project site is not within any of the safety zones established for the airport by the ALUCP. Therefore, the project is not expected to result in a safety hazard or excessive noise for people residing or working in the project area. No impact is anticipated.

f) **Less than significant impact.** This project would not impact the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan because the project site has adequate frontage on Pacific Avenue. A traffic study conducted for the project indicated that Pacific Avenue has sufficient width to accommodate anticipated project traffic (see Section XVII, Transportation). Therefore, the project would not impede any necessary emergency responses or evacuations. The project would provide adequate emergency access to the site through the proposed two driveways. The project does not pose a unique or unusual use or activity that would impair the effective and efficient implementation of an adopted emergency response or evacuation plan. A less-than-significant impact is anticipated.

g) **Less than significant impact.** This project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. The General Plan indicates the Sutter Buttes and the “river bottoms,” or those areas along the Sacramento, Feather, and Bear Rivers within the levee system, are susceptible to wildfires, since much of the areas inside the levees are left in a natural state, thereby allowing combustible fuels to accumulate over long periods of time. The project site is not located in the Sutter Buttes or “river bottom” areas. Additionally, the project site is not located within or near a fire hazard severity zone (see Section XX, Wildfire). The project site is served by existing fire protection services from the Sutter County Fire Department. Therefore, a significant risk of loss, injury, or death associated with wildland fires as a result of the proposed project is not anticipated, and impacts are considered less than significant.

(California Department of Toxic Substances Control, EnviroStor database. 2022)

(CAL FIRE, Fire Hazard Severity Zone Viewer. 2022)

(County of Sutter, General Plan Technical Background Report. 2008)

(Sacramento Area Council of Governments, Sacramento International Airport Land Use Compatibility Plan. 2013)

(State Water Resources Control Board, Geotracker Database. 2022)

X. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			✓	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project			✓	

may impede sustainable groundwater management of the basin?				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site;		✓		
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;		✓		
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or		✓		
iv) Impede or redirect flood flows?			✓	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			✓	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				✓

Responses:

a) **Less than significant impact.** This project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. This project proposes the construction and operational use of a truck parking yard, along with the use of existing buildings for truck repair activities. Since the project site would exceed one acre, the applicant is required to obtain coverage under the State Construction General Permit, under the NPDES program (Mitigation Measure No. 4). This program requires implementation of erosion control measures designed to avoid significant erosion. The Construction General Permit requires implementation of a SWPPP that includes BMPs to control runoff, erosion, and sedimentation from the site. This would minimize potential construction impacts on water quality.

As noted in the Project Description, the project proposes to relocate an existing well to the northeastern corner of the project. An improperly abandoned well could lead to adverse groundwater quality impacts. All new wells are required to obtain a permit from County Environmental Health Services, and all unused wells are required to be destroyed under a permit from the same agency. Permit conditions incorporate California Department of Water Resources (DWR) and SWRCB standards for installation of wells and DWR standards for destruction of wells, which are intended to prevent contamination of groundwater.

A retention basin would be constructed along the north, south, and western boundaries of the project site and a detention basin would be constructed in the northwestern corner to capture the increased storm runoff generated by the project. The detention basin would discharge collected runoff in an adjacent ditch. Potential water quality impacts would be addressed in a private drainage facilities maintenance agreement that the project would be required to obtain (see Mitigation Measure No. 7 below). Compliance with this mitigation measure would minimize the project's impact on water quality. No additional mitigation is necessary, and a less-than-significant impact is anticipated.

b) **Less than significant impact.** This project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. The project is a truck yard and repair facility, and would use minimal water, mainly for proposed landscaping. The project does propose handwashing stations; however, they would be part of the proposed portable restrooms, which would be self-contained. These restrooms would not be connected to any water wells or other water facilities at the site.

The proposed truck parking, light duty vehicle parking, and circulation aisles would be paved with asphalt. Although the project would result in conversion of the site to impervious surfaces, the additional parking area would be approximately 3.75 acres, which would not substantially impact groundwater recharge in the region. The project design includes a retention basin that would aid in groundwater recharge.

The project site would be landscaped with trees and shrubs as discussed in the Project Description and as shown on the proposed landscaping plan. Landscaping would include a drip irrigation system with water provided from the well on the site. Under the Commercial and Employment Design Checklist, required landscaping shall comply with the current Model Water Efficient Landscaping Ordinance prepared by DWR, as required by the California Water Conservation in Landscaping Act (Government Code Section 65591 *et seq.*). Landscaping on the project site would not use a substantial amount of groundwater. A less-than-significant impact is anticipated.

c-i, -ii, -iii) **Less than significant with mitigation incorporated**. This project would alter the existing drainage pattern of the site or area, though not in a manner which would result in substantial erosion or siltation on or off site or substantially increase the rate or amount of surface runoff in a manner resulting in flooding on or off-site. The project site is already developed to an extent; however, the project proposes to add impervious surfaces. As such, existing drainage patterns would be altered, and additional runoff would be generated.

However, the project proposes construction of a retention basin along the north, south, and western boundaries of the site that would collect the additional runoff, along with a detention basin in the northwestern corner. These basins would minimize impacts of the additional runoff. A hydraulic analysis by the project engineer indicates the basins can accommodate the runoff generated by project development.

The Development Services Engineering Division has reviewed this proposed project and has provided comments regarding the drainage of this project. Based on these comments, the following mitigation measures are recommended to ensure adequate onsite storm drainage facilities:

> **Mitigation Measure No. 5 (Hydrology and Water Quality):** DRAINAGE STUDY. Prior to issuance of a grading permit, encroachment permit, or building permit, the applicant shall obtain approval from the Director of a drainage study that reflects final design conditions for the proposed project per County Standards. The Drainage Study shall be completed and stamped by a Professional Engineer and

determined by the County to be comprehensive, accurate, and adequate (SCIS Section 9).

Mitigation Measure No. 6 (Hydrology and Water Quality): PRIVATE DRAINAGE IMPROVEMENTS. Prior to commercial use of the site, the applicant shall construct private onsite drainage ditches/basins that provide storm water retention/detention per a County-approved drainage study for this project. Owner shall limit maximum discharge rates, where applicable, to pre-project "existing" conditions for peak 10- and 100-year storms per an approved on-site drainage study for the project. The applicant must obtain a grading permit from the County prior to any grading for storm water retention/detention ditches or basins. The applicant shall provide an as-built drawing of the drainage improvements that is stamped and signed by a licensed Engineer verifying that what was constructed complies with the approved plan for the site.

Mitigation Measure No. 7 (Hydrology and Water Quality): PRIVATE DRAINAGE FACILITIES MAINTENANCE AGREEMENT. Prior to commercial use of the site, the property owner shall enter into an agreement with Sutter County committing the property owners and all successors-in-interest to maintain the private drainage facilities (including on-site peak flow attenuation basins) in perpetuity in a manner to preserve storage capacity, drainage patterns, ultimate discharge points and quantities, and water quality treatment controls for stormwater discharges as identified in the drainage study and approved by Sutter County.

Mitigation Measure No. 8 (Hydrology and Water Quality): GRADING AND CONSTRUCTION. All impacts to the site must be mitigated in the project area or lands acquired for mitigation by the project. Any grading or site improvements shall be done per an approved plan and in accordance with Sutter County Development Standards. Plans shall be reviewed and approved for construction by the Director of Development Services prior to the start of construction.

Trucks are monitored on a monthly check-in basis; those that are red-tagged at scales for oil or other leaks shall be worked on first. This would limit spills and contamination on site, which in turn would limit contamination to the groundwater when the runoff from the area is collected in the retention and detention ponds. In addition, the applicant would be required to prepare a SWPPP as a component of the General Construction Permit for storm water discharges (Mitigation Measure No. 4). This plan would be implemented during the construction phase of the project and would reduce erosion and stormwater pollution. With mitigation, project impacts related to drainage patterns and runoff would be less than significant.

c-iv) **Less than significant impact.** The project site is located within Flood Zone A99 according to Flood Insurance Rate Map No. 0603940820F, effective date June 16, 2015, issued by the Federal Emergency Management Agency (FEMA). Flood Zone A99 is one of the Special Flood Hazard Areas that consist of areas with a one percent annual chance of flooding that is protected by a federal flood control system where construction has reached specific legal requirements. In addition, an inquiry of the County's GIS system of APN 35-220-017 indicates that areas of the western and northern portions of the parcel have been designated as Local Flood Hazard Areas, which was required by SB 5 and supplements information on FEMA maps. The Local Flood Hazard Areas are within the Special Flood Hazard Area for the vicinity.

The applicant shall comply with all provisions of the Sutter County Floodplain Management Ordinance and FEMA regulations, which would be included as a project condition. FEMA does not restrict parking of trucks or vehicles in Special Flood Hazard Areas. However, the applicant would be required to notify tenants who intend to use the site for truck/vehicle parking of the potential flood depths that may cause flood damage to their trucks/vehicles; notification would be implemented as a project condition. With incorporation of these conditions, a less-than-significant impact is anticipated.

d) **Less than significant impact.** Some release of pollutants may occur from trucks caught in a potential flood on the project site, mainly vehicle fluids and oils. It is expected that truck drivers would be provided adequate warning about any potential flooding and would move their trucks away from the project site. Even if that is not the case, trucks themselves are not substantial pollution sources, and any releases of pollutants would likely be diluted by flood waters.

There is no anticipated impact to this project site resulting from tsunamis and seiches because the land is not located adjacent to or near any water bodies of sufficient size to create such situations. A less-than-significant impact is anticipated.

e) **No Impact.** The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. There are no currently adopted water quality control plans covering the project site. The County, along with other agencies, has prepared the Sutter Subbasin Groundwater Sustainability Plan that covers most of Sutter County, including the project site. The public comment period on the plan ended in April 2022. The project is not expected to interfere with implementation of the Groundwater Sustainability Plan, particularly since the project would not generate water demand. No impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

(Federal Emergency Management Agency, Flood Insurance Rate Map No. 0603940820F. 2015)

(Sutter Subbasin Groundwater Management Coordination Committee, Groundwater Sustainability Plan for the Sutter Subbasin, 2022)

XI. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				✓
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			✓	

Responses:

a) **No impact.** This project would not physically divide an established community because the project is located outside the Live Oak and Yuba City spheres of influence and the County's recognized rural communities. The project is within an area that is currently mostly agricultural, and the only development has been for industrial activities. The project site is within an area designated for employment land uses by the Sutter Pointe Specific Plan (see b) below) and would not divide designated residential areas. This project would not result in a physical barrier that would divide a community, so no impact is anticipated.

b) **Less than significant impact.** The project site is within an area covered by the Sutter Pointe Specific Plan. The Specific Plan, adopted in 2009 and amended in 2014 and 2020, guides development of a master-planned, mixed-use community on an approximately 7,528-acre site in southern Sutter County. The proposed development consists of approximately 3,600 acres of commercial and industrial employment uses, 2,900 acres for new homes, and 1,000 acres of parks, recreation, open space, and community facilities. The Specific Plan contains policies related to the conservation of biological and wetland resources as well as climate change.

The proposed project is consistent with the land use designation for the project site as specified in the Sutter Pointe Specific Plan. As such, the project is expected to be consistent with the analysis of environmental impacts in the Specific Plan EIR, certified in 2009. Moreover, the project is proposed on a site that is already substantially developed. The project would not introduce new or more severe impacts from those identified in the EIR.

This IS/MND analyzes the potential environmental impacts of the proposed project. For all environmental issues, the project would have no environmental impact, an impact that would be less than significant, or an impact that can be mitigated to a level that would be less than significant. Where necessary, mitigation has been incorporated into the project. The project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. A less-than-significant impact is anticipated.

(County of Sutter, General Plan 2030. 2011)

(County of Sutter, General Plan Technical Background Report. 2008)

(County of Sutter, Sutter Pointe Specific Plan. 2009, amended 2014, 2020)

(County of Sutter, Sutter Pointe Specific Plan EIR. 2009)

(County of Sutter, Zoning Code. 2022)

XII. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				✓

Responses:

a-b) **No impact.** This project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Neither the General Plan nor the State of California Division of Mines and Geology Special Publication 132 lists the project site as having any substantial mineral deposits of a significant or substantial nature. The project site is not located in the vicinity of any existing surface mines. No impact is anticipated.

(California Department of Conservation, Division of Mines and Geology, Special Report 132: Mineral Land Classification: Portland Cement Concrete-Grade Aggregate in the Yuba City-Marysville Production-Consumption Region. 1988)

(County of Sutter, General Plan Technical Background Report. 2008)

XIII. NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 groundborne vibration or groundborne 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?			✓	

Responses:

a) **Less than significant with mitigation incorporated.** This project would not result in a substantial temporary or permanent increase in ambient noise levels in the project vicinity in excess of standards established in the local general plan or noise ordinances, or applicable standards of other agencies. To determine noise impacts from the proposed project, ESA conducted an environmental noise assessment as part of its project analysis that also assessed project air quality and GHG impacts. This analysis is included as Appendix B to this Initial Study. The noise assessment describes characteristics of noise, the existing noise setting, and the regulatory context, and it presents an analysis of potential noise impacts from project construction and operation activities. Impacts were evaluated based on Sutter County General Plan noise standards, which set maximum allowable noise levels generated by stationary sources of 55 dBA at daytime and 45 dBA at nighttime to which noise-sensitive land uses may be exposed.

Operational Noise

Operations of the proposed project would increase ambient noise levels in the immediate vicinity, primarily through the on-site movement of trucks and heavy machinery. The noise assessment conducted an evaluation of the noise impacts on nearby residences, based on an assumption of six heavy trucks and nine automobiles in a peak hour, in accordance with the traffic impact analysis conducted for the project by Fehr & Peers (see Appendix D). The noise assessment assumed that the nearest noise-sensitive land use is approximately 600 feet south of the project site. While this is less than the 950 feet assumed in the air quality and GHG analyses, this assumption is useful as it provides a conservative analysis of noise impacts.

As shown in Table 4.7 of the noise assessment (see Appendix B), the highest noise levels generated during a semi-trailer truck operation (a TRU) would be 44 dBA at 600 feet, as it maneuvers into a loading dock that would be the approximate closest distance of the proposed truck yard to the nearest receptor. Once a truck is parked, the TRU could continue to operate, generating a noise level of 40 dBA at a distance of 600 feet. This peak operational noise level would be well below the County's daytime noise standard of 55 dBA for daytime operations. If truck maneuvering were to occur during nighttime hours, this activity would also be below the nighttime standard of 45 dBA. As noise generated by project operations would meet County standards, a less-than significant impact is anticipated.

Traffic Noise

In general, determinations of significant noise impacts as related to traffic are based on recommendations of the Federal Interagency Committee on Noise. Although these recommendations were specifically developed to assess aircraft noise impacts, they apply to all sources of transportation noise described in terms of cumulative noise exposure metrics. Table 4.6 of the noise assessment sets forth these recommendations.

Traffic noise levels were modeled using the algorithms of the Federal Highway Administration's Traffic Noise Model for the existing and existing plus project scenarios set forth in the traffic impact study. The resulting noise levels were then compared to existing modeled or monitored conditions, set forth in Table 4.2 of the noise assessment, to determine significance. The anticipated noise level changes resulting from the project are shown in Table 2 below. As indicated in Table 2, any increases in traffic noise resulting from the project would be less than the applicable significance criteria. Therefore, project impacts on traffic noise would be less than significant.

TABLE 2
TRAFFIC NOISE CHANGES ON AFFECTED ROADS

Roadway Segment	Existing	Applicable Increase Threshold*	Existing plus Project	Differenc e	Exceeds Threshold ?
Sankey Road, SR 99 to Pacific Ave	61.2	3	61.3	0.1	No
Sankey Road, Garden Hwy to SR 99	47.8	5	47.8	0.0	No
Sankey Road, W. Riego Rd to Pleasant Grove Rd	59.7	5	60.3	0.6	No
Riego Road, SR 99 to Pacific Ave	68.0	3	67.9	-0.1	No
Riego Road, Garden Hwy to SR 99	51.5	5	51.5	0.0	No
Riego Road, Pacific Ave to Pleasant Grove Rd	52.1	5	53.1	1.0	No
Pacific Avenue, Riego Rd to Sankey Rd	60.7	3	61.2	0.5	No

Note: All figures are in dBA. Existing and Existing plus Project figures are weekday peak-hour noise levels.
* Based on recommendations by the Federal Interagency Committee on Noise (see Table 4.6 of noise assessment).
Source: ESA 2022.

Construction Noise

The proposed project would result in temporary site construction noise associated with proposed improvements. Construction of the proposed project would require only fine grading and construction of hardscape. No buildings or other structures are proposed; however, one building is proposed for demolition.

Sutter County does not establish quantitative noise limits for construction activities occurring in the County. During project construction, exterior noise levels could affect the nearby existing sensitive receptors in the vicinity. Per Policy N 1.6 of the County's General Plan, all project-related noise-generating construction activities within 1,000 feet of noise-sensitive uses (i.e., residential uses, daycares, schools, convalescent homes, and medical care facilities) are limited to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays, 8:00 a.m. and 5:00 p.m. on Saturdays, and prohibited on Sundays and holidays unless permission for the latter has been applied for and granted by the County.

As noted, a rural residence is within 1,000 feet of the project site. This residence is considered a noise-sensitive use. To ensure compliance with General Plan Policy N 1.6, the following mitigation measure is proposed. Compliance with this mitigation measure would make construction noise impacts less than significant.

> **Mitigation Measure No. 9 (Noise):** During construction, the applicant shall ensure that all project related noise-generating construction activities are limited to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays, 8:00 a.m. and 5:00 p.m. on Saturdays, and are prohibited on Sundays and holidays unless permission for the latter has been applied for and granted by the County.

b) **Less than significant impact.** Some common sources of groundborne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving, and operation of heavy earth-moving equipment. Groundborne vibration may cause buildings to shake and rumbling sounds to be heard; however, it is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. The only sources of groundborne vibration in the project vicinity are heavy-duty vehicular travel (e.g., refuse trucks, haul trucks) on local roadways. General Plan Policy N 1.7 requires new development to minimize impacts of continuous vibration on adjacent uses during construction. Also, General Plan Policy EC-2.3 requires new development to minimize impacts of continuous vibration on adjacent uses during demolition and construction.

Measurements of groundborne vibrations include peak particle velocity (PPV), measured in inches per second (in/sec), and vibration decibels (VdB). The Federal Transit Administration measure of the threshold of architectural damage for conventional sensitive structures is 0.2 in/sec PPV, a standard also used by Caltrans. This threshold, with a VdB equivalent of 93, was used to analyze groundborne vibration impacts of the project. Another threshold used is established in the Sutter County General Plan - a VdB threshold of 80. At this VdB, groundborne vibration that occurs infrequently could be a disturbance at residences and buildings where people normally sleep.

Construction equipment or activities that typically generate continuous vibration include, but are not limited to, excavation equipment, impact pile drivers, static compaction equipment, vibratory pile drivers, pile-extraction equipment, and vibratory compaction equipment. Of these equipment types, only a vibratory roller would likely be used in paving. The noise assessment estimated that vibration levels generated by a vibratory roller would be 67 VdB at the nearest receptor. This would be below the 80-VdB threshold established by the County for disturbance of sleep, as well as the 93-VdB threshold for potential building damage. Therefore, vibrations generated by construction equipment would have a less-than-significant impact.

Truck traffic at a distance of 50 feet from a site typically generates groundborne vibration velocity levels of around 63 VdB (approximately 0.006 in/sec PPV), and these levels could reach 72 VdB (approximately 0.016 in/sec PPV) where trucks pass over discontinuities in the roadway. Neither of these levels meet or exceed the vibration level thresholds used in the analysis. Therefore, vibration impacts from project operations would be less than significant. Overall, a less-than-significant groundborne vibration impact is anticipated.

c) **Less than significant impact.** This project is not located within the vicinity of a private airstrip, public airport, or public use airport; therefore, it would not result in excessive noise levels for people residing or working in the project area. As noted in Section IX, Hazards and Hazardous Materials, the nearest public airport is Sacramento International Airport, approximately 5.5 miles southwest of the project site. The project site is outside all the noise contours designated in the Sacramento International ALUCP, including the outermost 60-dB CNEL contour. Moreover, the project site is within the ALUCP Referral Area 2, which includes areas where airspace protection and/or overflight are compatibility concerns, but not noise or safety.

The closest private airstrip is the Tenco Tractor Airport, more than one-quarter mile to the southeast. Given the airstrip alignment away from the project site and the limited number of project employees, users of the proposed truck yard are unlikely to experience significant noise from airstrip operations. A less-than-significant impact from airport and airstrip noise is anticipated.

(California Department of Transportation, Transportation and Construction Vibration Guidance Manual. 2013)

(County of Sutter, General Plan 2030. 2011)

(County of Sutter, General Plan Technical Background Report. 2008)

(ESA, Draft Platinum Trucking Truck Yard Study Technical Report. 2022)

(Sacramento Area Council of Governments, Sacramento International Airport Land Use Compatibility Plan. 2013)

XIV. POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			✓	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✓

Responses:

a) **Less than significant impact.** This project would not induce substantial unplanned population growth in an area, directly or indirectly. No residential use is proposed as part of the project and there would be no direct population growth. As noted in the Project Description, only five employees would work at the project site. Given the low number of employees, the project would not induce substantial indirect population growth. The amount of population growth in the area would be negligible and a less-than-significant impact is anticipated.

b) **No impact.** This project would not displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere, as there are no existing residents on the project site nor any existing housing. The proposed project would not expand beyond the property boundaries; therefore, it would not displace any housing or people outside these boundaries. No impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

XV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Fire protection?			✓	
ii) Police protection?			✓	
iii) Schools?				✓
iv) Parks?				✓
v) Other public facilities?				✓

Responses:

a-i) **Less than significant impact.** Fire protection services for the project vicinity are provided by the Sutter County Fire Department. The project site is located in County Service Area D, an area covered by the Pleasant Grove Fire Department, a volunteer department that is now a Board-dependent district. County Service Area D has two fire stations: at 3100 Howsley Road and at 3489 Sankey Road, the latter being closer to the project site.

The project site is already served by the County Fire Department; therefore, the project would not affect fire service response time there. Existing County roads would provide adequate transportation routes to reach the project site in the event of a fire. The project is a truck yard with existing buildings that would be used for truck repair services. No new buildings would be constructed; in fact, one building would be removed, along with propane tanks storing flammable material. The Development Services Building Division reviewed this project and stated that buildings over 5,000 square feet would require fire sprinklers or be divided into separate fire areas not to exceed 5,000 square feet. The applicant has proposed to construct one demising wall in each building. The project would provide adequate emergency access for firefighting vehicles. Based on this information, the construction of new fire facilities would not be required to provide adequate service to this project. A less-than-significant impact is anticipated.

a-ii) **Less than significant impact.** This project would not have a significant impact on police protection. Law enforcement services for unincorporated portions of Sutter County are provided by the Sutter County Sheriff's Department, and traffic investigation services are provided by the California Highway Patrol. Response time would not be affected by the proposed project because the project would not result in an increase in population. Existing County roads would provide adequate transportation routes to reach the project site in the event of an emergency. The construction of new sheriff facilities would not be required to provide adequate service to this project. A less-than-significant impact is anticipated.

a-iii) **No impact.** This project would not have a significant impact on schools because this project would not generate additional demand for school services. No new residences are proposed with this project; therefore, there would not be any new students. No impact is anticipated.

a-iv) **No impact.** This project would not have a significant impact upon parks because it would not generate a need for additional parkland or create an additional impact upon existing parks in the region. This project would not result in any new residences which require park services; therefore, this project would not have a significant impact on countywide parks. No impact is anticipated.

a-v) **No impact.** This project is not anticipated to impact other public facilities because the project would not result in the need for new or expanded public facilities. No new buildings or residences that would generate a demand for other public services are proposed by this project. No impact is anticipated.

(County of Sutter, Zoning Code. 2022)

(County of Sutter, General Plan Technical Background Report. 2008)

XVI. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				✓
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				✓

Responses:

a-b) **No impact.** This project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. This project would not result in residential development, which would generate demand for recreational facilities such that new or expanded facilities would be required. There are no existing neighborhood or regional parks in the project vicinity that would be potentially affected. No impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

XVII. TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?		✓		
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			✓	
c) Substantially increase hazards to a geometric design feature (e g., sharp curves or dangerous intersections) or incompatible uses (e g, farm equipment)?		✓		
d) Result in inadequate emergency access?			✓	

Responses:

a) **Less than significant with mitigation incorporated.** This project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. This property is in a rural area between Yuba City and Sacramento. The project site is currently not served by mass transit or bicycle paths, and no sidewalks have been installed along the project frontage (Pacific Avenue). Given the rural nature of the area, personal vehicles would be the most likely form of transportation. The Sutter Pointe Specific Plan proposes future development in the area; however, current development has been limited.

The Sutter County General Plan establishes the County's Level of Service (LOS) policy for County roads. LOS is a qualitative measure of traffic flow ranging from A to F, with A representing best conditions. Policy M 2.5 is to develop and manage the County roadway segments and intersections to maintain LOS D or better during peak hours, and LOS C or better at all other times. The County LOS standards apply to all County roadway segments and intersections, unless otherwise addressed in an adopted specific plan or community plan.

A traffic impact study for the project was prepared by Fehr & Peers, dated March 22, 2022, as part of a larger project analysis conducted by ESA. The traffic study is included as Appendix D to this Initial Study. The traffic analysis documents the existing traffic setting, applicable regulations, project travel characteristics, project operational analysis under proposed project and cumulative conditions, and project impacts under CEQA. It also evaluated project impacts on other modes of transportation, such as transit and bicycling.

For this project, the traffic study estimated a total of 424 daily vehicle trips, of which 133 were truck trips. It was assumed that all project truck trips would use Pacific Avenue and Riego Road to the SR 99 interchange, as this is a marked STAA route. Southbound passenger vehicles would use the SR 99/Riego Road interchange, while northbound passenger vehicles would use the SR 99/Sankey Road intersection. A limited number of passenger vehicles would travel east on Riego Road and Sankey Road.

The key findings of the traffic study related to traffic plans are presented below:

- The addition of project trips would not change the current LOS on four of the five intersections studied: Sankey Road/Pacific Avenue, Riego Road/SR 99 southbound ramps, Riego Road/SR 99 northbound ramps, and Riego Road. All these intersections would operate at a LOS above the General Plan's minimum requirement of LOS D.

- The Sankey Road/SR 99 intersection currently operates below the County's adopted LOS threshold under existing conditions, and delay would be exacerbated by the proposed project during the PM peak hour.

- According to AASHTO's Green Book 7th Edition (2018), Pacific Avenue does not need to be widened to accept project truck traffic. If the average daily traffic on Pacific Avenue increases above 2,000 vehicles per day, AASHTO recommends widening the traveled way to 24 feet.

In summary, the traffic analysis concluded that the project would not conflict with applicable General Plan policies regarding transportation, except regarding LOS at the Sankey Road/SR 99. However, as a result of SB 743, LOS impacts by themselves are not considered environmental impacts under CEQA. Further discussion on potential impacts at this intersection is provided in c) below.

The traffic study states there are no bicycle or pedestrian facilities at the proposed project frontage. The only portion of the study area with pedestrian or bike facilities is the Riego Road/SR 99 interchange, which contains about one-half mile of sidewalks and Class II bike lanes on both sides of Riego Road. However, under the Sutter Pointe Specific Plan, Pacific Avenue between Sankey Road and Riego Road is planned as a future four-lane divided minor arterial, with five-foot Class II bike lanes and six-foot sidewalks buffered from the bike lanes by a planter strip and/or on-street parking. Implementation Program M 5-C in the Sutter County General Plan requires the conditioning of new development to construct bicycle and pedestrian lanes/trails and associated facilities in and supporting the development project in accordance with the County's Bikeway and Pedestrian Master Plan and County improvement standards; and to the extent possible, connect these facilities to existing and planned bicycle lanes/trails.

The project application was circulated to Caltrans for review and comment since project traffic proposes to use State Highway 99. Caltrans had no comments regarding the proposed project. The Development Services Engineering Division reviewed this project, including the traffic study. They have provided comments regarding transportation of this project, including a determination that additional land dedications would be required. Based on these comments, the following mitigation measures are recommended:

Mitigation Measure No. 10 (Transportation): LAND DEDICATION. The project applicant shall dedicate sufficient rights-of-way and/or public service easements as necessary to Sutter County to provide the specified widths for the following road (Sutter County Ordinance Code Section 1400-520 b):

- Pacific Avenue, 53.5 feet (half-width) requires dedication of a 15-foot right-of-way plus a uniform 12.5-foot public service easement to the County.

Mitigation Measure No. 11 (Transportation): TERMINAL ACCESS ROUTE. Prior to commercial use of the site and prior to use of this facility by Surface Transportation Assistance Act (STAA) trucks, the applicant must show that the site has access to an established STAA route with the proper signage in place and that Terminal Access requirements are met. In addition, the applicant must submit and obtain approval of a STAA route access plan which shows the STAA route to be used by the facility. Sutter County Development Services, along with the Caltrans District Truck Coordinator, shall evaluate the proposed route for use by STAA Trucks and develop a list of improvements that will need to be made before commercial use of the site. All expenses for Terminal Access evaluation, engineering, and improvements required to make the access route and facility meet Terminal Access classification requirements shall be borne by the applicant.

Mitigation Measure No. 12 (Transportation): FUTURE FRONTAGE IMPROVEMENTS. The project applicant shall pay the project's fair share contribution for future roadway improvements along the portion of Pacific Avenue that fronts the property when deemed necessary by the County. The improvements required need to match what is specified in the Sutter Pointe Specific Plan. A reimbursement agreement shall be entered into between Sutter County and the project applicant that guarantees the reimbursement for the cost of the improvements along the frontage of Pacific Avenue based on the costs of construction at the time of installation.

Mitigation Measure No. 13 (Transportation): FUTURE TRAFFIC IMPACT. The applicant shall pay the project's fair share contribution for a future traffic signal, and improvements required to install the signal, on Riego Road as it intersects Pacific Avenue when deemed necessary by the County. A reimbursement agreement shall be entered into between Sutter County and the project applicant that guarantees the reimbursement for the cost of the improvements to install a signal light at Pacific Avenue as it intersects Riego Road, based on the costs of construction at the time of installation. The applicant's fair share percentage of the cost of the signal and all improvements to install the signal shall be as follows:

- Riego Road and Pacific Avenue Signal = Project ADT/Existing ADT (Pacific Ave) = 424/1341 = **31.6%**

Based on the findings of the traffic study, and with the proposed mitigation measures incorporated into the project, a less-than-significant impact is anticipated.

b) **Less than significant impact.** This project would not conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b). This section of CEQA states that vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts. VMT refers to the amount and distance of automobile travel attributable to a project. The

Governor's Office of Planning and Research (OPR) Technical Advisory for VMT assessment clarifies that “the term ‘automobile’ refers to on-road passenger vehicles, specifically cars and light trucks.” It does not include heavy-duty trucks, although VMT for these vehicles could be included for modeling convenience and ease of calculation. This section also states VMT exceeding an applicable threshold of significance may indicate a significant impact. Sutter County has not adopted a threshold of significance for VMT nor has it yet adopted guidelines or policies addressing VMT.

As part of an analysis of project impacts on air quality, GHG, and noise, Fehr & Peers drafted a memorandum describing the results of a traffic study for the project, which included a VMT assessment. This assessment was based on VMT screening maps developed by the Sacramento Area Council of Governments (SACOG). According to the applicable map, the proposed project site is captured in a geographical area containing other industrial businesses where the average workplace VMT per job is 38.1. This is well above the threshold used to determine if VMT impacts are significant (Fehr & Peers 2022). The VMT calculations were based upon trip generation figures used for the traffic study. According to the memo, the project would generate 291 passenger vehicle trips daily.

However, as noted in the Project Description, no more than 30 trucks per day would use the proposed truck yard. Assuming the driver of each of these 30 trucks would be responsible for two passenger vehicle trips when driving to and from the truck yard, and assuming two passenger vehicle trips for each of the maximum number of onsite employees (five per the Project Description), the maximum number of daily passenger vehicle trips would be 70. The VMT of these 70 passenger vehicle trips was estimated using the CalEEMod air quality model, which calculates VMT as part of its program for estimating emissions generated by mobile sources. CalEEMod estimated that the project would generate approximately 279,101 VMT annually, or approximately 764.66 VMT daily. With the 30 truck drivers plus five employees, the project VMT per job would be approximately 21.8.

The Fehr & Peers memo cited a SACOG regional VMT per employee in its analysis. However, in a study of three proposed truck yards in Sutter County, the threshold used was 85% of the current VMT average for unincorporated Sutter County (27.41 VMT x 0.85 = 23.3 VMT per job). As shown above, the project daily VMT would be approximately 21.8, which is below 23.3. Therefore, the project VMT would be below the significance threshold developed for projects in Sutter County, and VMT impacts may be considered less than significant.

Moreover, the OPR Technical Advisory sets forth screening criteria for which projects meeting at least one of these criteria can be presumed to have a less-than-significant VMT impact, absent substantial evidence that the project will lead to a significant impact. One of these criteria is a “Small Project”, which is defined as a project that generates 110 or fewer average daily vehicle trips. As noted above, the project would generate a maximum of 70 passenger vehicle trips daily. As such, the project would qualify as a "Small Project" and can be presumed to have a VMT impact that would be less than significant.

c) **Less than significant with mitigation incorporated.** The sight distance evaluation showed that project driveways would maintain adequate sight distance to approaching vehicles under Existing Plus Project conditions. As noted in a) above, Pacific Avenue does not need to be widened to accept project truck traffic. Research conducted as part of the traffic study indicated there were no recorded collisions on Pacific Avenue that resulted in injuries or fatalities that were attributed to left-turn movements. While AASHTO guidance states that a left-turn lane "may be desirable", the traffic study made no recommendations on installing left-turn pockets, deferring to the County on this issue.

One of the key findings of the traffic study that relate to safety issues associated with the project was that average maximum vehicle queues are expected to be less than corresponding storage lengths at most study intersections except at the Sankey Road/SR 99 intersection. The intersection is designed with a refuge area between the northbound and southbound SR 99 travel lanes to allow drivers making left turns from SR 99 or through movements on Sankey Road to navigate the intersection in two stages. Microsimulation shows that the eastbound through movement from the refuge area queues upstream, resulting in vehicles queuing in the southbound SR 99 left-turn lane and eastbound Sankey Road approach. However, the vehicle queues do not exceed available storage or impact southbound SR 99 operations. The project is forecasted to add one vehicle to the southbound left-turn movement during the AM and PM peak hours, which would contribute to the southbound left-turn vehicle queue. However, the vehicle queue would not exceed available storage.

Nevertheless, a potential safety issue was identified at the Sankey Road/SR 99 intersection regarding left turns onto southbound SR 99, which would be exacerbated by the addition of project truck traffic. Based on discussion with County staff, the traffic study recommended an improvement measure that is incorporated as a mitigation measure below:

> **Mitigation Measure No. 14 (Transportation):** TRAFFIC ROUTE. All inbound and outbound commercial truck traffic to and from State Route (SR) 99 or areas west of SR 99 are prohibited from using Sankey Road and, instead, shall use Pacific Avenue to West Riego Road to SR 99. The project applicant shall fully fund installation of directional signing (on-site and off-site) to direct trucks to the proper route as specified. In addition, the project driveways shall be designed to be left-in and right-out only.
>
> **Mitigation Measure No. 15 (Transportation):** LEFT TURN LANE. Prior to commercial use of the site, the applicant shall construct a left-turn lane on Pacific Avenue for each driveway being used to enter the site by commercial trucks. The length of the left-turn lane shall accommodate at least two trucks, and any widening of Pacific Avenue that is required to accommodate the turn lane shall be the responsibility of the applicant to design and construct.

With implementation of this mitigation measure, project impacts related to safety would be less than significant.

d) **Less than significant impact.** The project proposes the installation of two driveways to provide access to the project site. The driveways would provide adequate access for emergency vehicles. As noted in c) above, Pacific Avenue provides adequate width for vehicle traffic, so emergency vehicles are not anticipated to be obstructed on this roadway. Project impacts would be less than significant.

(County of Sutter, General Plan Technical Background Report. 2008)

(County of Sutter, General Plan 2030. 2011)

(Fehr & Peers, Platinum Express Truck Yard - Draft Traffic Study. 2022)

XVIII. TRIBAL CULTURAL RESOURCES

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or		✓		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		✓		

Responses:

a-i -ii) **Less than significant with mitigation incorporated.** The Solano Archaeological Services technical memorandum (see Appendix C) noted that the Native American Heritage Commission was requested to search its Sacred Lands File for any information on the project site. The results of the search were negative. Archival research and the field survey did not identify any prehistoric cultural resources within the project site.

In September of 2014, the California Legislature passed Assembly Bill (AB) 52, which added provisions to the Public Resources Code regarding the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes.

On September 2, 2022, the County sent a notice to the following seven local tribes inviting comments on the project:

- Mechoopda Indian Tribe of Chico Rancheria
- Mooretown Rancheria of Maidu Indians
- United Auburn Indian Community of the Auburn Rancheria (UAIC)
- Strawberry Valley Rancheria
- Enterprise Rancheria of Maidu Indians
- Ione Band of Miwok Indians
- Wilton Rancheria

Only the Mooretown Rancheria responded in the time requested. The Rancheria stated that it had no record of any cultural resources in the area, but they reserved the right to be notified of any post-review/inadvertent discoveries.

As noted in Section V, Cultural Resources, there were no records of any cultural resources on the project site. It was acknowledged that, although unlikely, previously unknown cultural resources and human burials could be encountered during project construction. These could include resources and burials of interest to local tribes. Implementation of the following mitigation measure would reduce project impacts on tribal cultural resources to a level that would be less than significant.

> **Mitigation Measure No. 16 (Tribal Cultural Resources):** If any suspected tribal cultural resources (TCRs) are discovered during project ground disturbing construction activities, all work shall cease within 100 feet of the find, or an agreed upon distance based on the project area and nature of the find. A Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with a geographic area shall be immediately notified and shall determine if the find is a TCR (PRC §21074). The Tribal Representative shall make recommendations for further evaluation and treatment as necessary.
>
> When avoidance is infeasible, preservation in place is the preferred option for mitigation of TCRs under CEQA, and every effort shall be made to preserve the resources in place, including through project redesign, if feasible. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, or returning objects to a location within the project area where they would not be subject to future impacts. Permanent curation of TCRs would not take place unless approved in writing by the California Native American Tribe that is traditionally and culturally affiliated with the project area.
>
> The contractor shall implement any measures deemed by the CEQA lead agency to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including, but not limited to, facilitating the appropriate tribal treatment of the find, as necessary. Treatment that preserves or restores the cultural character and integrity of a TCR may include tribal monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. Work at the discovery location shall not resume until all necessary investigation and evaluation of the discovery under the requirements of the CEQA, including AB 52, have been satisfied.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications			✓	

facilities, the construction or relocation of which could cause significant environmental effects?				
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?			✓	
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			✓	
e) Comply with federal, state and local management and reduction statutes and regulations related to solid waste?			✓	

Responses:

a) **Less than significant impact.** This project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. A new groundwater well would be drilled, which would replace an existing well on the project site. However, the new well would be part of the project development and would have no impacts outside those of the development. As noted in Section X, Hydrology and Water Services, the existing well would be destroyed in accordance with County regulations.

This project would require no new water service, wastewater treatment service, natural gas, or telecommunications facilities. Electric power needs would be satisfied by tying into existing utilities provided at the site. An existing septic system with leach field would be removed and replaced with an onsite holding tank and would not require expansion, given the limited number of employees and availability of trailer-mounted restrooms.

Private drainage improvements are proposed for the site, as discussed previously in the Hydrology and Water Quality section. The environmental impacts of the construction of these onsite drainage improvements are addressed in this environmental document. The applicant would be required to obtain coverage under the State Construction General Permit, which requires implementation of a SWPPP that includes BMPs to control runoff, erosion, and sedimentation from the site. A retention basin constructed along the north, west, and southern boundary of the site, and a detention basin constructed at the northwest corner would be constructed to capture the increased storm runoff generated by additional parking areas. No additional mitigation is needed, and a less-than-significant impact is anticipated.

b) **Less than significant impact.** This project would not place a significant demand on water supplies. As stated in the Hydrology and Water Quality section, this project is not anticipated to generate any water demand other than for landscaping and for handwashing stations on self-contained portable trailers. As noted in a) above, water would be provided by a new well on the project site that would replace an existing well that is proposed to be abandoned. A less-than-significant impact is anticipated.

c) **No impact.** This project would not result in a determination by a wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. This project is not located in an area that is served by a wastewater treatment provider. As noted, the project proposes to use a septic holding tank and portable restrooms. These restrooms would be pumped as needed by a septic pumper registered with Sutter County. Therefore, no demands would be placed on a local sanitary sewer system, and no impact is anticipated.

d-e) **Less than significant impact.** This project would have a less than significant impact on solid waste. Solid waste from this project would be disposed of through the local waste disposal company in a sanitary landfill in Yuba County which has sufficient capacity to serve this project. Disposal of project solid waste into that facility would comply with all federal, state, and local statutes and regulations related to solid waste. As a result, a less-than-significant impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as Very High Fire Hazard Severity Zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				✓
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				✓
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				✓
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				✓

Responses:

a-d) **No impact.** The subject property is not located in or near a State Responsibility Area or on lands classified as within a Very High fire hazard severity zone. The project site is mostly surrounded by agricultural fields, which are not susceptible to wildfires. Therefore, no impacts are anticipated.

(CAL FIRE, Fire Hazard Severity Zone Viewer. 2022)

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

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

Responses:

a) **Less than significant with mitigation incorporated.** No environmental effects were identified in the initial study which indicate this project would have the ability to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Mitigation Measures Nos. 2 and 3, proposed in Section V, Cultural Resources, and Mitigation Measure No. 16, proposed in Section XVIII, Tribal Cultural Resources, would protect possible disturbance of archaeological resources and human remains should they be encountered.

b) **Less than significant with mitigation incorporated.** The State CEQA Guidelines identify two basic methods for establishing the cumulative environment in which the project is to be considered: the use of a list of past, present, and probable future projects (the “list approach”) or the use of adopted projections from a general plan, other regional planning document, or certified EIR for such a planning document (the “plan approach”). For this IS/MND, both approaches are used.

<u>Sutter Pointe Specific Plan and EIR</u>

The project site is within the area covered by the Sutter Pointe Specific Plan. As described in Section XI, Land Use and Planning, the Specific Plan provides guidance to development of approximately 7,528 acres in southern Sutter County. The Sutter Pointe Specific Plan EIR evaluated the potential environmental impacts of the proposed development, including cumulative impacts. The Specific Plan EIR combined the list approach and the plan approach. The list approach was used to define the local project environment and included projects within Yuba, Sacramento, and Placer Counties, mostly other specific plans. Because the Specific Plan directly influences and is influenced by regional development activities, the plan approach was used to allow a cumulative analysis on a regional scale, which included Sutter, Sacramento, and Placer Counties.

The Specific Plan EIR concluded that development under the Sutter Pointe Specific Plan would make a considerable contribution to cumulative environmental impacts on the following issue areas: visual resources, light and glare, agricultural land conversion, construction air pollutant and GHG emissions, operational air pollutant and GHG emissions, toxic air contaminants, special-status species, loss of jurisdictional Waters of the U.S., cultural resources, traffic noise, traffic operations on regional and local roadways, wastewater conveyance and treatment facilities, and natural gas infrastructure. The Specific Plan would not make a considerable contribution to cumulative impacts on other issue areas analyzed in the Specific Plan EIR. It should be noted that the determination on cumulative traffic impacts was based on LOS, which is no longer used to determine environmental impacts.

The proposed project is consistent with the land use designation of the project site by the Sutter Pointe Specific Plan. Since the Specific Plan EIR based its environmental impact analysis on the Specific Plan land use designations, the project would be consistent with the EIR analysis on cumulative impacts. As noted throughout this IS/MND, the project would have no significant impacts with implementation of mitigation measures for specific issues. Therefore, the project would not have new or more severe impacts and would not make a considerable contribution to any cumulative effects identified in the Specific Plan EIR.

<u>Sutter County Truck Yard Study</u>

A study analyzing the potential cumulative impacts of truck yard development, primarily along the State Highway 99 corridor south of Yuba City, was conducted for the County by ESA. The study identified six areas of potential cumulative environmental impacts: air quality, health risk from TAC emissions, hydrology, lighting, noise, and traffic. The potential cumulative impacts of the proposed project on each of these issues is presented below.

<u>Air Quality</u>: The air quality analysis for the proposed project indicates that its operational emissions would not exceed the established FRAQMD thresholds of significance for criteria pollutants (see Section III, Air Quality). Future attainment of federal and State ambient air quality standards is a function of successful implementation of the applicable attainment plans. Consequently, the application of significance thresholds for criteria pollutants is relevant to the determination of whether a project’s individual emissions would have a cumulatively significant impact on air quality. Since none of the proposed truck yards, including the proposed project, are anticipated to exceed the FRAQMD significance thresholds, they would be considered to have no cumulatively considerable impacts regarding attainment of air quality plans.

Health Risk: Exposure of sensitive receptors to potential health risks are a localized impact and typically are not considered cumulative in character. As noted in Section III, the air quality analysis for the proposed project conducted a health risk assessment and concluded that there would be no significant health risks from project operations.

Hydrology: As with health risks, hydrologic impacts are localized in character and typically do not have cumulative effects. As described in the Hydrology and Water Quality section, the proposed project would not have significant drainage and runoff impacts with implementation of Mitigation Measures Nos. 5 through 8. The mitigation measures for the proposed project would likely apply to the other sites, as all sites over one-acre are required to prepare a SWPPP and comply with the NPDES General Permit.

Lighting: Lighting impacts are localized in character and typically do not have cumulative effects. All projects would be required to conform to the exterior lighting requirements of the County's Zoning Code that require down shielding and other measures to reduce light spillover. As noted in Section I, Aesthetics, a photometric plan for the project indicated that no increase in illumination would occur outside project site boundaries.

Noise: In rural areas, noise impacts generally are localized in character and typically do not have cumulative effects, unless noise sources are located closely. As discussed in Section XIII, Noise, noise generated by project operations and project traffic would not exceed County thresholds. The proposed project is located in an area designated for employment land uses, which are not sensitive to changes in noise levels. Nevertheless, Mitigation Measure No. 9 would be applied to the proposed project to reduce construction noise impacts.

Traffic: As noted in Section XVII, Transportation, a traffic study was conducted for the proposed project. The study did not include an assessment of project traffic impacts under cumulative conditions. However, as noted above, the proposed project is consistent with the land use designations of the Sutter Pointe Specific Plan, development under which was analyzed in the Specific Plan EIR. The project would not have new or more severe transportation impacts than those analyzed in the Specific Plan EIR. Therefore, the project is not expected to make a considerable contribution to cumulative traffic impacts.

The VMT evaluation conducted for the project concluded that the project would not exceed unincorporated County VMT, and it would be considered a small project. Therefore, the project would not make a considerable contribution to cumulative VMT impacts. Based on the information provided above, and with the implementation of Mitigation Measures No. 10 through 15, the project's contribution to cumulative impacts is anticipated to be less than significant.

c) **Less than significant impact**. No environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly, were identified in the initial study.

(County of Sutter, Draft Environmental Impact Report, Sutter Pointe Specific Plan. 2008)

(ESA, Sutter County Truck Yard Study Technical Report. 2021)

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MITIGATION MONITORING PROGRAM

Mitigation Measure	Timing	Monitoring Agency
Mitigation Measure No. 1 (Air Quality): IMPLEMENT FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT (FRAQMD) STANDARD MITIGATION MEASURES. The project applicant shall implement the following FRAQMD-recommended Standard Mitigation Measures for projects that do not exceed construction or operational thresholds of significance. ● Implement the Fugitive Dust Control Plan prior to any on-site grading, landscaping, or construction activities. The applicant shall submit the fugitive dust control plan to the FRAQMD for review and approval. A copy of the approved plan shall be submitted to the Development Services Department. ● Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions limitations (40 percent opacity or Ringlemann 2.0). ● The contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation. ● Limit idling time to 5 minutes – saves fuel and reduces emissions in accordance with 13 California Code of Regulations (CCR) Chapter 10 Section 2485 and 13 CCR Chapter 9 Article 4.8 Section 2449. ● Utilize existing power sources or clean fuel generators rather than temporary power generators during construction. ● Develop traffic plans to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.	Prior to any on-site grading, landscaping, or construction activities/Ongoing	FRAQMD/ Development Services

Mitigation Measure	Timing	Monitoring Agency
• Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require California Air Resources Board (CARB) Portable Equipment Registration with the State or a local district permit. The owner/operator shall be responsible for arranging appropriate consultation with CARB or FRAQMD to determine registration and permitting requirements prior to equipment operation at the site.		
Mitigation Measure No. 2 (Cultural Resources): If archaeological resources are discovered on the project site, potential ground disturbing activities within 100 feet of the find shall be halted immediately and the Development Services Department shall be notified. A qualified archaeologist shall examine the find and evaluate its significance. The archaeologist shall recommend measures needed to reduce effects on the cultural resource in a written report to the County. The County shall be responsible for implementing the report recommendations.	During construction activities	Construction personnel
Mitigation Measure No. 3 (Cultural Resources): If human remains are discovered on the site potentially ground disturbing activities within 100 feet of the remains shall be halted immediately, and the project applicant shall notify the Sutter County Coroner and Native American Heritage Commission (NAHC) immediately, according to Public Resources Code §5097.98 and Section 7050.5 of California's Health and Safety Code. If the remains are determined by the NAHC to be Native American, the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project applicant shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. Following the coroner's and NAHC's findings, the archaeologist, and the NAHC-designated Most Likely Descendant shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for	During construction activities	Construction personnel

Mitigation Measure	Timing	Monitoring Agency
acting upon notification of a discovery of Native American human remains are identified in Public Resources Code Section 5097.94.		
Mitigation Measure No. 4 (Geology and Soils): STORM WATER QUALITY PROTECTION – DURING CONSTRUCTION. SWPPP - Prior to the start of construction, the applicant shall prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to be executed through all phases of grading and project construction. The SWPPP shall incorporate Best Management Practices (BMPs) to ensure that potential water quality impacts during construction phases are minimized. These measures shall be consistent with the County's Improvement Standards and Land Grading and Erosion Control Ordinance and the requirements of the National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. The SWPPP shall be submitted to the County for review and to the Central Valley Regional Water Quality Control Board as required by the NPDES General Permit in effect during construction. During construction, the applicant shall implement actions and procedures established to reduce the pollutant loadings in storm drain systems. The project applicant shall implement BMPs in accordance with the SWPPP and the County's Improvement Standards. The project applicant(s) shall submit a state storm water permit Waste Discharger Identification (WDID) number for each construction project. NPDES GENERAL CONSTRUCTION PERMIT – Since the project size is more than one acre, prior to construction the applicant shall file a Notice of Intent (NOI) with the Central Valley Regional Water Quality Control Board (CVRWQCB) to obtain coverage under the California State Water Resources - General Construction Activity Storm Water Permit. Permits are issued by the State Water Resources Control Board, which can provide all information necessary to complete and file the necessary documents. Applicant shall comply with the terms of the General Construction Permit, the County's ordinances, and the	Prior to the start of construction and during construction	RWQCB/ Development Services Engineering Division

Mitigation Measure	Timing	Monitoring Agency
NPDES Waste Discharge Requirements for the Sutter County Phase II NPDES Permit.		
Mitigation Measure No. 5 (Hydrology and Water Quality): DRAINAGE STUDY. Prior to issuance of a grading permit, encroachment permit, or building permit, the applicant shall obtain approval from the Director of a drainage study that reflects final design conditions for the proposed project per County Standards. The Drainage Study shall be completed and stamped by a Professional Engineer and determined by the County to be comprehensive, accurate, and adequate (SCIS Section 9).	Prior to issuance of a grading permit, encroachment permit, or building permit	Development Services Engineering Division
Mitigation Measure No. 6 (Hydrology and Water Quality): PRIVATE DRAINAGE IMPROVEMENTS. Prior to commercial use of the site, the applicant shall construct private onsite drainage ditches/basins that provide storm water retention/detention per a County-approved drainage study for this project. Owner shall limit maximum discharge rates, where applicable, to pre-project "existing" conditions for peak 10- and 100-year storms per an approved on-site drainage study for the project. The drainage ditches/basins shall not be connected to the roadside swales. The applicant must obtain a grading permit from the County prior to any grading for storm water retention/detention ditches or basins. The applicant shall provide an as-built drawing of the drainage improvements that is stamped and signed by a licensed Engineer verifying that what was constructed complies with the approved plan for the site.	Prior to commercial use of the site	Development Services Engineering Division
Mitigation Measure No. 7 (Hydrology and Water Quality): PRIVATE DRAINAGE FACILITIES MAINTENANCE AGREEMENT. Prior to commercial use of the site, the property owner shall enter into an agreement with Sutter County committing the property owners and all successors-in-interest to maintain the private drainage facilities (including on-site peak flow attenuation basins) in perpetuity in a manner to preserve storage capacity, drainage patterns, ultimate discharge points and quantities, and water quality treatment controls for stormwater discharges as identified in the drainage study and approved by Sutter County.	Prior to commercial use of the site	Development Services Engineering Division

Mitigation Measure	Timing	Monitoring Agency
Mitigation Measure No. 8 (Hydrology and Water Quality): GRADING AND CONSTRUCTION. All impacts to the site must be mitigated in the project area or lands acquired for mitigation by the project. Any Grading or Site Improvements shall be done per an approved plan and in accordance with Sutter County Development Standards. Plans shall be reviewed and approved for construction by the Director of Development Services prior to the start of construction.	Prior to start of construction and during construction	Development Services Engineering Division
Mitigation Measure No. 9 (Noise): During construction, the applicant shall ensure that all project related noise-generating construction activities are limited to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays, 8:00 a.m. and 5:00 p.m. on Saturdays, and are prohibited on Sundays and holidays unless permission for the latter has been applied for and granted by the County.	Upon start of construction activities	Development Services
Mitigation Measure No. 10 (Transportation): LAND DEDICATION. The project applicant shall dedicate sufficient rights-of-way and/or public service easements as necessary to Sutter County to provide the specified widths for the following road (Sutter County Ordinance Code Section 1400-520 b): ● Pacific Avenue, 53.5 feet (half-width) requires dedication of a 15-foot right-of-way plus a uniform 12.5-foot public service easement to the County.	Prior to commercial use of the site	Development Services Engineering Division
Mitigation Measure No. 11 (Transportation): TERMINAL ACCESS ROUTE. Prior to commercial use of the site and prior to use of this facility by Surface Transportation Assistance Act (STAA) trucks, the applicant must show that the site has access to an established STAA route with the proper signage in place and that Terminal Access requirements are met. In addition, the applicant must submit and obtain approval of a STAA route access plan which shows the STAA route to be used by the facility. Sutter County Development Services, along with the Caltrans District Truck Coordinator, shall evaluate the proposed route for use by STAA Trucks and develop a list of improvements that will need to be made before commercial use of the site. All expenses for Terminal Access evaluation, engineering, and improvements required to make the access route and facility meet	Prior to commercial use of the site and prior to use of this facility by STAA trucks	Development Services Engineering/ Caltrans

Mitigation Measure	Timing	Monitoring Agency
Terminal Access classification requirements shall be borne by the applicant.		
Mitigation Measure No. 12 (Transportation): FUTURE FRONTAGE IMPROVEMENTS. The project applicant shall pay the project's fair share contribution for future roadway improvements along the portion of Pacific Avenue that fronts the property when deemed necessary by the County. The improvements required need to match what is specified in the Sutter Pointe Specific Plan. A reimbursement agreement shall be entered into between Sutter County and the project applicant that guarantees the reimbursement for the cost of the improvements along the frontage of Pacific Avenue based on the costs of construction at the time of installation.	6 months from written notification by Sutter County Development Services	Development Services Engineering Division
Mitigation Measure No. 13 (Transportation): FUTURE TRAFFIC IMPACT. The applicant shall pay the project's fair share contribution for a future traffic signal, and improvements required to install the signal, on Riego Road as it intersects Pacific Avenue when deemed necessary by the County. A reimbursement agreement shall be entered into between Sutter County and the project applicant that guarantees the reimbursement for the cost of the improvements to install a signal light at Pacific Avenue as it intersects Riego Road, based on the costs of construction at the time of installation. The applicant's fair share percentage of the cost of the signal and all improvements to install the signal shall be as follows: ● Riego Road and Pacific Avenue Signal = Project ADT/Existing ADT (Pacific Ave) = 424/1341 = **<u>31.6%</u>**	6 months from written notification by Sutter County Development Services	Development Services Engineering Division
Mitigation Measure No. 14 (Transportation): TRAFFIC ROUTE. All inbound and outbound commercial truck traffic to and from State Route (SR) 99 or areas west of SR 99 are prohibited from using Sankey Road and, instead, shall use Pacific Avenue to West Riego Road to SR 99. The project applicant shall fully fund installation of directional signing (on-site and off-site) to direct trucks to the proper route as specified. In addition, the project driveways shall be designed to be left-in and right-out only.	Prior to commercial use of the site/Ongoing	Development Services Engineering Division

Mitigation Measure	Timing	Monitoring Agency
Mitigation Measure No. 15 (Transportation): LEFT TURN LANE. Prior to commercial use of the site, the applicant shall construct a left-turn lane on Pacific Avenue for each driveway being used to enter the site by commercial trucks. The length of the left-turn lane shall accommodate at least two trucks, and any widening of Pacific Avenue that is required to accommodate the turn lane shall be the responsibility of the applicant to design and construct.	Prior to commercial use of the site.	Development Services Engineering Division
Mitigation Measure No. 16 (Tribal Cultural Resources): If any suspected tribal cultural resources (TCRs) are discovered during project ground disturbing construction activities, all work shall cease within 100 feet of the find, or an agreed upon distance based on the project area and nature of the find. A Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with a geographic area shall be immediately notified and shall determine if the find is a TCR (PRC §21074). The Tribal Representative shall make recommendations for further evaluation and treatment as necessary. When avoidance is infeasible, preservation in place is the preferred option for mitigation of TCRs under CEQA, and every effort shall be made to preserve the resources in place, including through project redesign, if feasible. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, or returning objects to a location within the project area where they would not be subject to future impacts. Permanent curation of TCRs would not take place unless approved in writing by the California Native American Tribe that is traditionally and culturally affiliated with the project area. The contractor shall implement any measures deemed by the CEQA lead agency to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including, but not limited to, facilitating the appropriate tribal treatment of the find, as necessary. Treatment that preserves or restores the cultural character and integrity of a TCR may include tribal monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural	During construction activities	Construction personnel

Mitigation Measure	Timing	Monitoring Agency
objects or cultural soil. Work at the discovery location shall not resume until all necessary investigation and evaluation of the discovery under the requirements of the CEQA, including AB 52, have been satisfied.		

APPENDIX A
PROJECT DRAWINGS

PLATINUM EXPRESS
PROJECT PLANS FOR CONSTRUCTION OF
NEW TRUCK YARD AT 7235 PACIFIC AVENUE
IN PLEASANT GROVE

TO BE SUPPLEMENTED BY CALTRANS STANDARD PLANS DATED 2018

INDEX OF SHEETS

DEVELOPER:

AMIT DHUGGA
PLATINUM EXPRESS
1512 STARR DRIVE SUITE C
YUBA CITY, CALIFORNIA 95993
PHONE: (530) 923-7927

PROJECT CONSULTANTS:

1. CIVIL ENGINEER:
MHM INCORPORATED
1204 E STREET, P.O. BOX B
MARYSVILLE, CALIFORNIA 95901
PHONE: (530) 742-6485
FAX: (530) 742-5639

2. LAND SURVEYORS:
MHM INCORPORATED (ATTN ROGER HANLIN)
1204 E STREET, P.O. BOX B
MARYSVILLE, CALIFORNIA 95901
PHONE: (530) 742-6485
FAX: (530) 742-5639

CALL BEFORE YOU DIG
48 HOURS
CALL "USA" TOLL FREE
1-800-227-2600

UNDERGROUND SERVICE ALERT
THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES TWO (2) WORKING DAYS PRIOR TO GRADING OR DIGGING

3. ALL GRADING, SITE PREPARATION, PLACING AND COMPACTING OF FILL SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS AND UNDER THE CONTROL OF THE SOILS ENGINEER. RECOMMENDATIONS OF THE SOILS REPORT SHALL BE STRICTLY ADHERED TO.

4. DUST CONTROL: AT ALL TIMES DURING CONSTRUCTION AND UNTIL FINAL COMPLETION, THE CONTRACTOR WHEN HE OR HIS SUBCONTRACTORS ARE OPERATING EQUIPMENT ON THE SITE, SHALL PREVENT THE FORMATION OF ANY AIRBORNE NUISANCE BY WATERING AND/OR TREATING THE SITE OF THE WORK IN SUCH A MANNER THAT WILL CONFINE DUST PARTICLES TO THE IMMEDIATE SURFACE OF THE WORK. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY DUST FROM HIS OWN ACTIVITIES OR HIS SUBCONTRACTOR'S ACTIVITIES IN PERFORMING THE WORK UNDER HIS CONTRACT, AND SHALL BE RESPONSIBLE FOR ANY CITATIONS, FINES OR CHARGES RESULTING FROM DUST NUISANCE.

5. ANY ABANDONED UNDERGROUND PIPELINES EXPOSED DURING GRADING SHALL BE REMOVED OR ADEQUATELY PLUGGED.

6. ROUND CUT SLOPES TO BLEND IN WITH THE NATURAL GROUND CONTOUR.

7. PRIOR TO COMMENCING ANY GRADING ON THE SITE, CONTRACTOR SHALL MARK THE EXTERIOR BOUNDARIES CORNER WITH A 4x4 POST WITH THE TOP 3 FEET PAINTED RED. BOUNDARY MARKERS SHALL BE MAINTAINED UNDISTURBED THROUGHOUT THE GRADING OPERATION.

8. PROTECTIVE FENCING AND/OR BARRIERS SHALL BE PROVIDED WHEN NECESSARY TO PROTECT ADJACENT PROPERTIES DURING GRADING OPERATION.

9. SITE GRADING SHALL BE DONE TO A TOLERANCE OF 0.10± FEET IN GENERAL SITE AREAS. SITE PAVING AND HARDSCAPE AREAS SHALL BE DONE TO A TOLERANCE OF 0.05± FEET.

10. CONTRACTOR SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE STATE CONSTRUCTION SAFETY ORDERS.

11. CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS FOR PUBLIC WORKS, AMBULANCE, POLICE, AND FIRE DEPARTMENTS.

12. THE OWNER HAS TO PREPARE A STORM WATER POLLUTION PREVENTION PLAN FOR THIS PROJECT. ALL EROSION CONTROL MEASURES SHOWN SHALL BE INCLUDED IN THE BASE BID FOR THIS PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL BMPS. A COPY OF THE SWPPP SHALL BE KEPT ON-SITE AT ALL TIMES DURING CONSTRUCTION. A NOTICE OF INTENT, (N.O.I.) WILL BE FILED BY THE OWNER AND APPROVED BY THE STATE WATER RESOURCES CONTROL BOARD BEFORE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES THAT WILL RESULT IN DISTURBANCE OF ONE (1) ACRE, OR GREATER, OF TOTAL LAND AREA.

13. ALL EXISTING ELEVATIONS ARE AS MEASURED IN THE FIELD UNLESS OTHERWISE NOTED.

14. HOURS OF GRADING OPERATION SHALL BE FROM 7:00 A.M. TO 6:00 P.M. MONDAY THROUGH FRIDAY, 8:00 A.M. TO 5:00 PM ON SATURDAY, WITH NO WORK ON SUNDAY AND LEGAL HOLIDAYS. NO WORK OF ANY KIND, INCLUDING MOVEMENT OF EQUIPMENT ON OR OFF THE SITE OR WARMING UP OF EQUIPMENT IS PERMITTED OUTSIDE OF THESE HOURS OF OPERATION.

15. ALL CUT AND FILL SLOPES AT THE BOUNDARY LINE SHALL BE CONSTRUCTED IN SUCH A MANNER THAT ADJACENT FENCES WILL NOT BE DAMAGED. NO CONSTRUCTION WILL BE PERMITTED WITHIN 6 INCHES OF FENCES UNLESS OTHERWISE INDICATED ON THE PLANS.

16. ALL EXISTING UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE COMPLETE SATISFACTION OF THE LOCAL AGENCY'S ENGINEER AT THE CONTRACTOR'S EXPENSE.

17. WHERE AN EXCAVATION FOR A TRENCH AND/OR STRUCTURE IS FIVE FEET DEEP OR MORE, THE CONTRACTOR SHALL CONFORM TO O.S.H.A. REQUIREMENTS AND SHALL PROVIDE A COPY OF THE APPROVED O.S.H.A. PERMIT AND SHORING DETAILS AND CALCULATIONS PREPARED BY A CALIFORNIA-LICENSED STRUCTURAL ENGINEER TO THE CITY ENGINEER.

18. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO SUTTER COUNTY TECHNICAL SPECIFICATIONS AND/OR THE 2018 CALTRANS STANDARD SPECIFICATIONS AND PLANS AND ALL RECOMMENDED MANUFACTURER'S SPECIFICATIONS. THE CONTRACTOR SHALL OBTAIN AND USE ALL APPLICABLE ADDENDUMS. CONSTRUCTION LAYOUT SHALL CONFORM TO THE DIMENSIONS SHOWN ON THE SITE PLAN SHEET C3.

19. UTILITY RELOCATION REQUIRED FOR THE CONSTRUCTION OF THESE FACILITIES WILL BE PERFORMED BY THE UTILITY COMPANY, UNLESS OTHERWISE NOTED.

20. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR FURNISHING, INSTALLING AND MAINTAINING ALL WARNING SIGNS AND DEVICES NECESSARY TO SAFEGUARD THE GENERAL PUBLIC AND THE WORK AND PROVIDE FOR THE PROPER AND SAFE ROUTING OF VEHICULAR AND PEDESTRIAN TRAFFIC DURING THE PERFORMANCE OF THE WORK.

21. PRIOR TO THE START OF WORK THE CONTRACTOR SHALL HAVE APPROVED PLANS IN HIS POSSESSION AND SHALL GIVE AMIT DHUGGA 48 HOURS NOTICE PRIOR TO COMMENCING WORK.

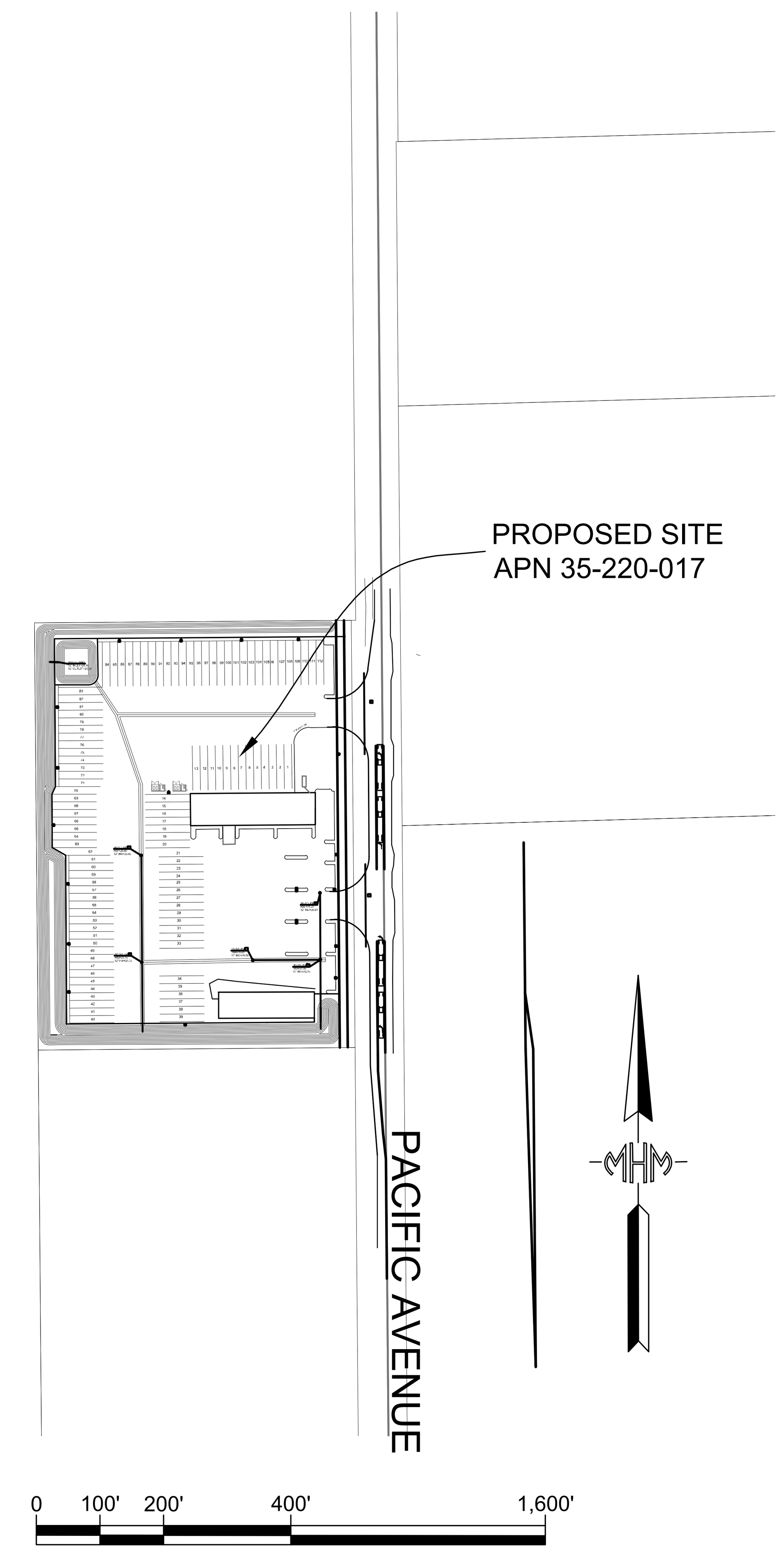
22. THE CONTRACTOR SHALL CONSTRUCT ALL IMPROVEMENTS TO THE LINES AND GRADES SHOWN ON THE PLANS. ANY DEVIATION FROM THE PLANS SHALL REQUIRE THE APPROVAL OF AMIT DHUGGA.

23. AN ENCROACHMENT PERMIT MUST BE OBTAINED FOR ALL WORK WITHIN THE STREET RIGHT-OF-WAY AND MUST BE IN THE POSSESSION OF THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTACT SUTTER COUNTY FOR PERMIT.

24. NO GUARANTEE IS IMPLIED AS TO THE EXISTING UTILITIES EXACT LOCATION OR THAT OTHER UTILITIES MAY EXIST WHICH ARE NOT SHOWN.

25. ANY EXISTING WELLS TO BE ABANDONED SHALL BE ABANDONED IN ACCORDANCE WITH AND PERMITTED BY SUTTER COUNTY ENVIRONMENTAL HEALTH DEPARTMENT.

26. NO SITE MATERIALS CAN BE STORED WITHIN THE COUNTY RIGHT-OF-WAY.



VICINITY MAP
NOT TO SCALE

MHM INCORPORATED, PLATINUM EXPRESS, OR SUTTER COUNTY SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

NOTE: THE CONTRACTOR SHALL POSSESS THE FOLLOWING CONTRACTOR LICENSE(S) AT THE TIME THIS CONTRACT IS AWARDED:

A. GENERAL ENGINEERING

AUTHORIZED FOR CONSTRUCTION BY:

NEAL HAY, P.E. — DATE
DIRECTOR OF DEVELOPMENT SERVICES
COUNTY OF SUTTER
RCE 55634 EXP 12-31-22

UTILITY REPRESENTATIVES

UTILITY	AGENCY	CONTACT	PHONE NUMBER
FIRE PROTECTION	SUTTER COUNTY FIRE	JOHN SHALOWITZ	(530) 822-4575
GAS	PACIFIC GAS & ELECTRIC	STAFF	(530) 634-6576
ELECTRICITY	PACIFIC GAS & ELECTRIC	JOSH DEADMORE	(530) 634-6405
TELEPHONE	AT&T	LEE NIETO	(916) 484-2384
CABLE TELEVSION	COMCAST	BRANDON STOKES	(530) 332-5993
WATER	SUTTER COUNTY	NEAL HAY	(530) 822-7400
SEWER	SUTTER COUNTY	JEFF WILLIAMS	(530) 822-7400
STORM DRAINAGE	SUTTER COUNTY	PUBLIC WORKS	(530) 822-7400
	UNDERGROUND SERVICE ALERT		(800) 227-2600

SUBMITTED BY:

PREPARED UNDER THE SUPERVISION OF

John Mallen — 03-08-23

MHM INCORPORATED — DATE
JOHN MALLEN, P.E.
R.C.E.# 62315 EXP. 09-30-23

DATE OF TOPOGRAPHIC SURVEY: 1-11-22
DATE OF PLANS: 03-08-23
WDID NO. XXXXXXXX

REGISTERED PROFESSIONAL ENGINEER JOHN S MALLEN No. 62315 STATE OF CALIFORNIA

REV.	DATE	BY	APPR.	DESCRIPTION

DESIGNED BY: KAS
DRAWN BY: KAS
CHECKED BY: JSM
JOB NO.: 22-117
FILE NAME: 22117MAST

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
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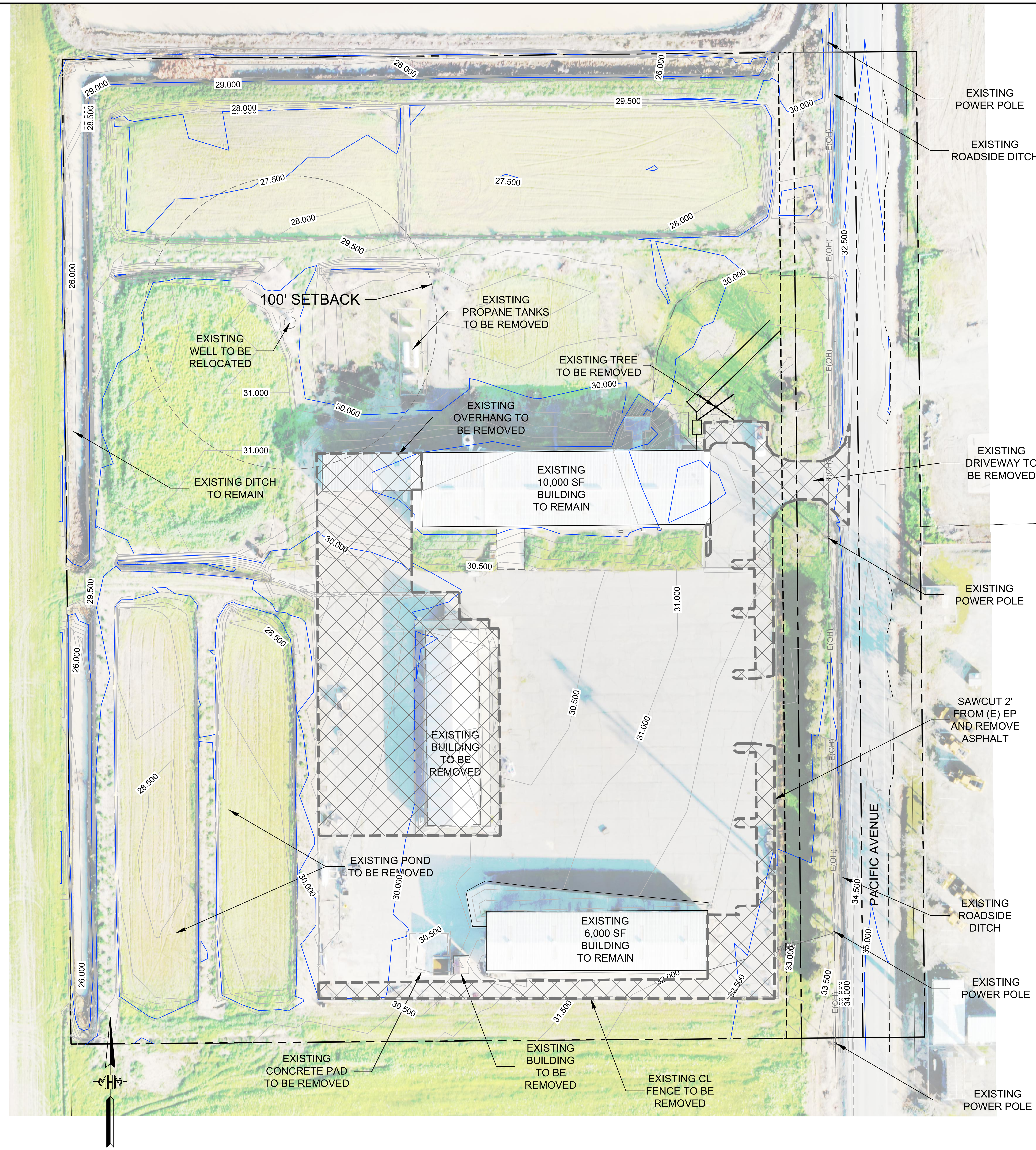
ENGINEERS & SURVEYORS SINCE 1892
ENGINEERING-SURVEYING
1204 "E" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485/Fax(530)742-5639

PLATINUM EXPRESS
NEW TRUCK YARD
7235 PACIFIC AVENUE
APN 35-220-017

TITLE SHEET, LOCATION & VICINITY MAP

T-1
DATE: 03/08/2023
SHEET 1 — SHEETS 9



LEGEND

	EXISTING	PROPOSED
SURVEY MONUMENT/BENCH MARK		
UTILITY POLE		
STREET LIGHT		
GUY WIRE AND ANCHOR		
CONSTRUCTION CENTERLINE		25
TOP OF CANAL EMBANKMENT		
TOE OF CANAL		
STORM DRAIN	12"SD	12"SD
SANITARY SEWER	12"SS	12"SS
WATER MAIN	8"W	8"W
SEWER FORCE MAIN	20"FM	20"FM
GAS MAIN	UG	
UNDERGROUND TELEPHONE	UT	
OVERHEAD ELECTRIC	OE	
FENCE	X	X
SPOT ELEVATION	X (E) 25.0	x 25.0
CONTOUR LINE	25	
ASSESSOR'S PARCEL NO.	25-025-254	
PROPERTY LINE		
TREE		TO BE REMOVED
BUILDING		TO BE REMOVED
TEST PIT LOCATION		
IRRIGATION CONTROLLER		
TRANSMISSION LINE TOWER		
DITCH FLOWLINE		
WATER SERVICE		
SEWER SERVICE		
POSTAL CBU		
FIRE HYDRANT		
WATER MAIN BLOW-OFF		
STORM DRAIN MANHOLE		
DRAINAGE INLET		
HANDICAP RAMP		
SANITARY SEWER MANHOLE		
CURB TRANSITION		
TRAFFIC CALMING DEVICE		
MASONRY BLOCK WALL		

DEMO LEGEND:

ASPHALT CONCRETE (AC)
DEMO EXISTING ASPHALT AND CONRETE CURB

0 25' 50' 100' 200'

REGISTERED PROFESSIONAL ENGINEER JOHN S MALLEN STATE OF CALIFORNIA

REV.	DATE	BY	APPR.	DESCRIPTION

DESIGNED BY: KAS
DRAWN BY: KAS
CHECKED BY: JSM
JOB NO.: 22-117
FILE NAME: 22117MAST

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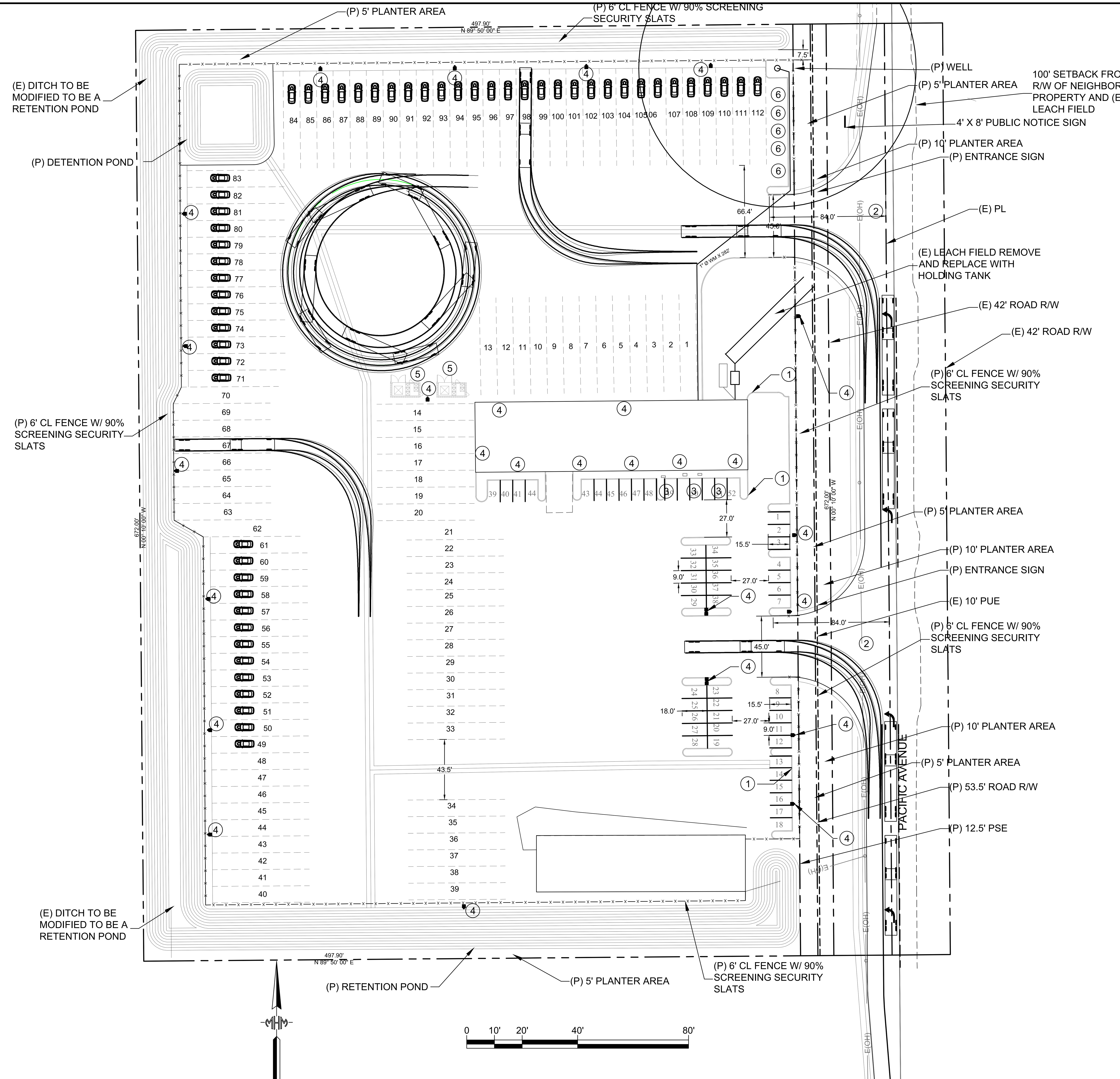
PLATINUM EXPRESS
NEW TRUCK YARD
7235 PACIFIC AVENUE
APN 35-220-017

SITE LAYOUT

L-1
DATE: 03/08/2023
SHEET 2
SHEETS 9



PARKING :

PROJECT PROVIDED:

REQUIRED NUMBER OF CAR PARKING STALLS = 30 TRUCKS / 1.5 + 2*16,000/1000 = 52

TOTAL NUMBER OF CAR PARKING STALLS = 52 STALLS (INCLUDING 3 ACCESSIBLE PARKING STALLS)

PARKING DIMENSIONS:

STANDARD STALL SIZE = 9' X 15.5' AND 9' X 18'

STALL DRIVE ISLE = 27'

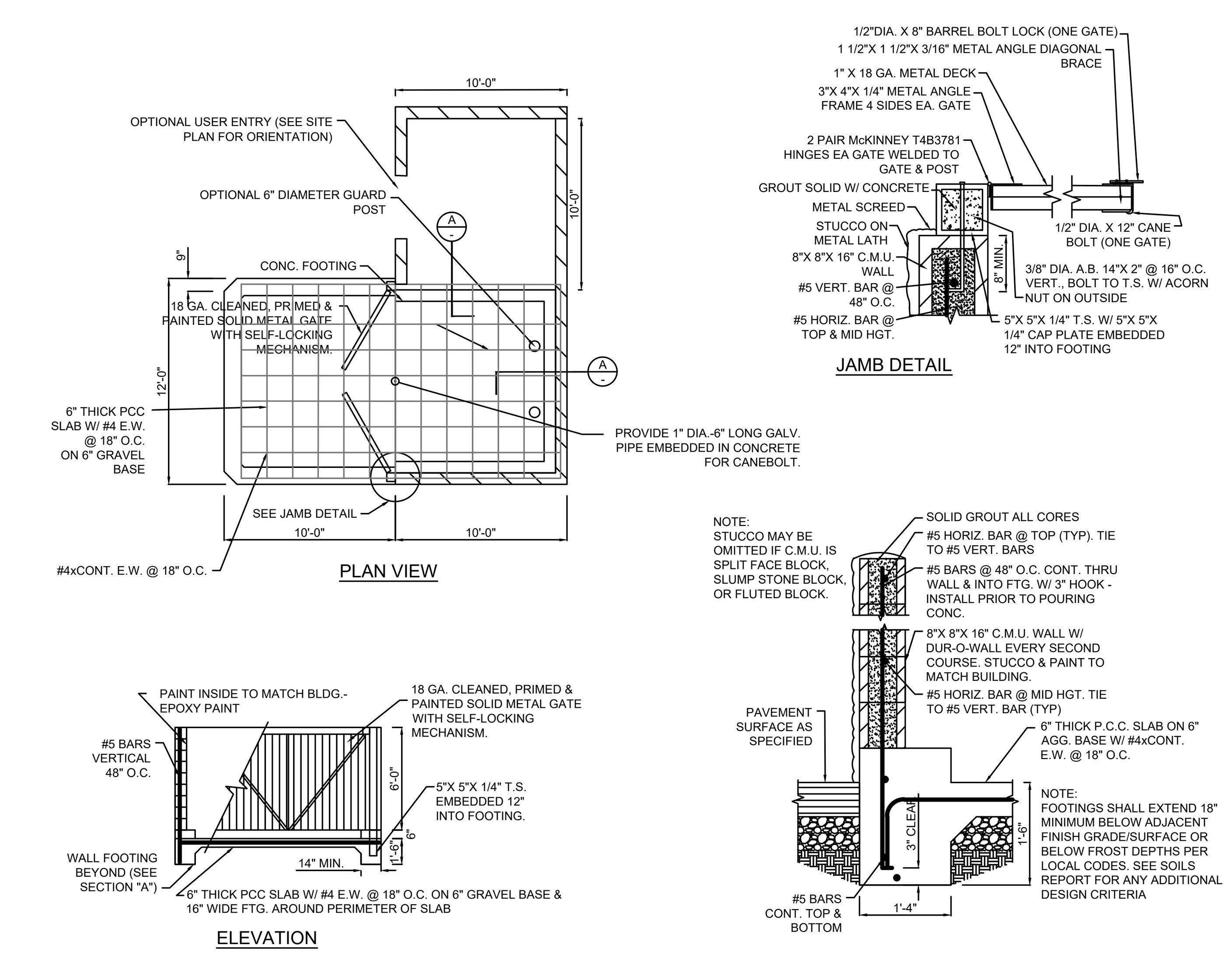
STANDARD TRUCK STALL SIZE = 12' X 70'

CURB STOPS USED AT BACK OF STALLS FOR TRUCK AND PASSENGER VEHICLES FOR PROTECTION OF FENCE, LANDSCAPING, AND BUILDINGS

TRUCK PARKING STALLS 49-61 AND 71-112 SHALL ALSO BE USED AS PASSENGER VEHICLE PARKING

CONSTRUCTION NOTES:

1. CONSTRUCT 6" PCC CURB PER COUNTY DETAIL H-2 ON SHEET C6
2. CONSTRUCT COMMERCIAL DRIVEWAY PER COUNTY DETAIL H-12 ON SHEET C6
3. ACCESSIBLE PARKING STALL
4. SITE LIGHTING
5. TRASH ENCLOSURE
6. BATHROOM TRAILER



TRASH ENCLOSURE DETAIL

REV.	DATE	BY	APPR.	DESCRIPTION

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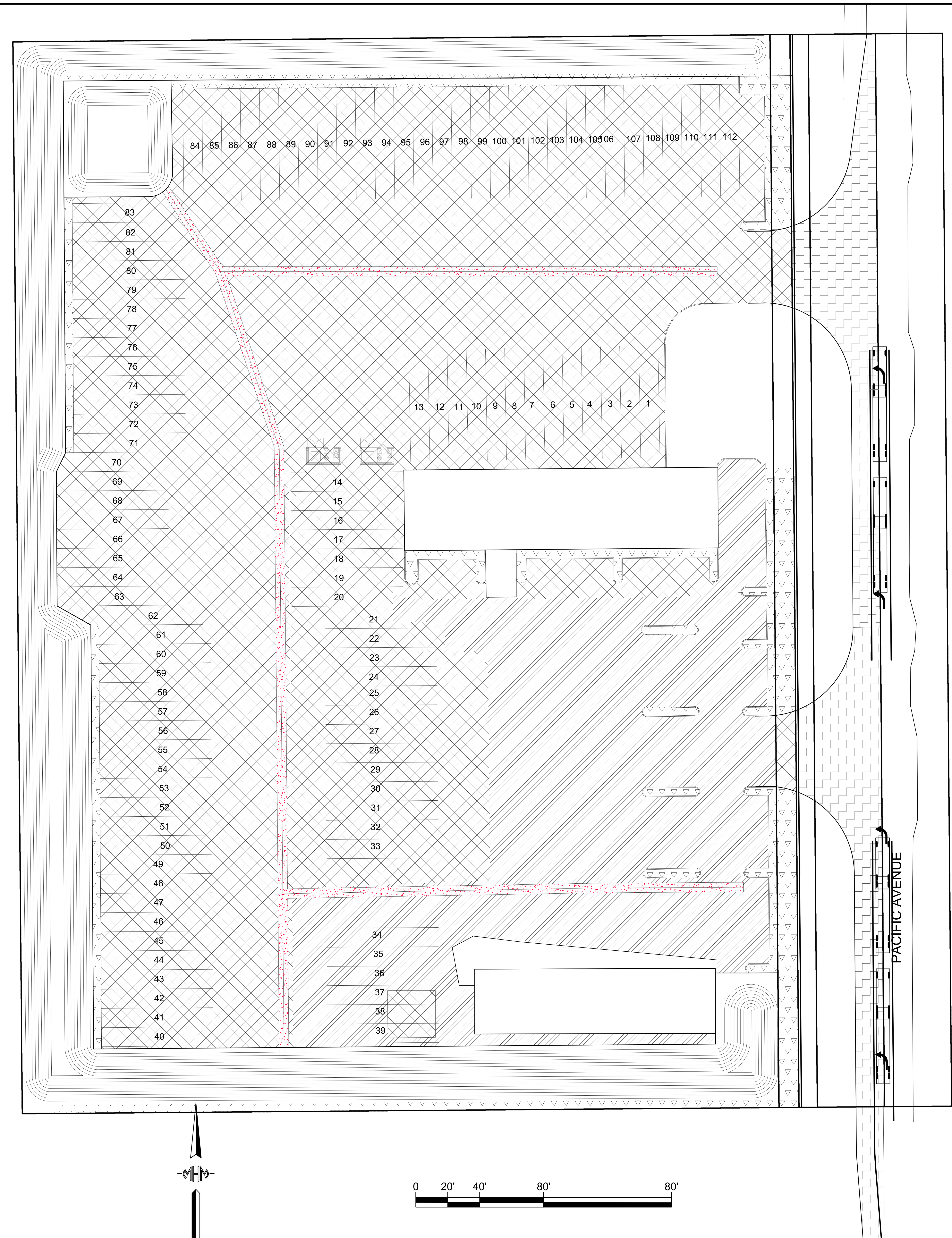
PLATINUM EXPRESS
NEW TRUCK YARD
7235 PACIFIC AVENUE
APN 35-220-017

LAYOUT AND PAVEMENT DELINEATION PLAN

PD-1
DATE: 03/08/2023
SHEET 3
SHEETS 9



ASPHALT CONCRETE (AC) 164,380 SF
1/2" TYPE B 3.5" AC ON 12" CL. 2 A.B. ON 12" COMPACTED SUBGRADE (90% RELATIVE COMPACTION) (T.I.=6.5, R-VALUE=20)

ASPHALT CONCRETE (AC) (COUNTY RIGHT-OF-WAY) (8,700 SF)
1/2" TYPE A 5" AC ON 18" CL 2 A.B. ON 12" COMPACTED SUBGRADE (95% RELATIVE COMPACTION) (T.I. 10.0, R-VALUE=20)

COLD PLANE AND CONFORM GRIND (53,375 SF)
COLD PLANE TOP 0.20' HMA AND OVERLAY 0.20' W/ HMA

PLANTERS (13,375 SF)
PREPARE ORIGINAL GROUND SURFACE AS SPECIFIED. PLACE ENGINEERED FILL (NATIVE OR IMPORTED) WHERE NECESSARY TO ACHIEVE SUBGRADE ELEVATIONS. PLACE 8 INCHES OF TOPSOIL (NATIVE OR IMPORTED) TO FINISH GRADES SHOWN.

PORTLAND CEMENT CONCRETE VALLEY GUTTER
8" CONCRETE VALLEY GUTTER ON 8" CLASS 2 A.B. OVER 6" COMPACTED SUBGRADE (95% RELATIVE COMPACTION). (MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 3000 PSI)

PORTLAND CEMENT CONCRETE PAVEMENT (PCCP)
6" THICK WITH #4 REBAR 18" O.C. ON 10" CLASS 2 A.B. OVER (SECTION & SUBGRADE TO MIN. 95% RELATIVE COMPACTION) (MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 3,500 PSI) USED AS AN ALTERNATIVE A.C. SECTION.

REGISTERED PROFESSIONAL ENGINEER JOHN S MALLEN STATE OF CALIFORNIA

REV.	DATE	BY	APPR.	DESCRIPTION

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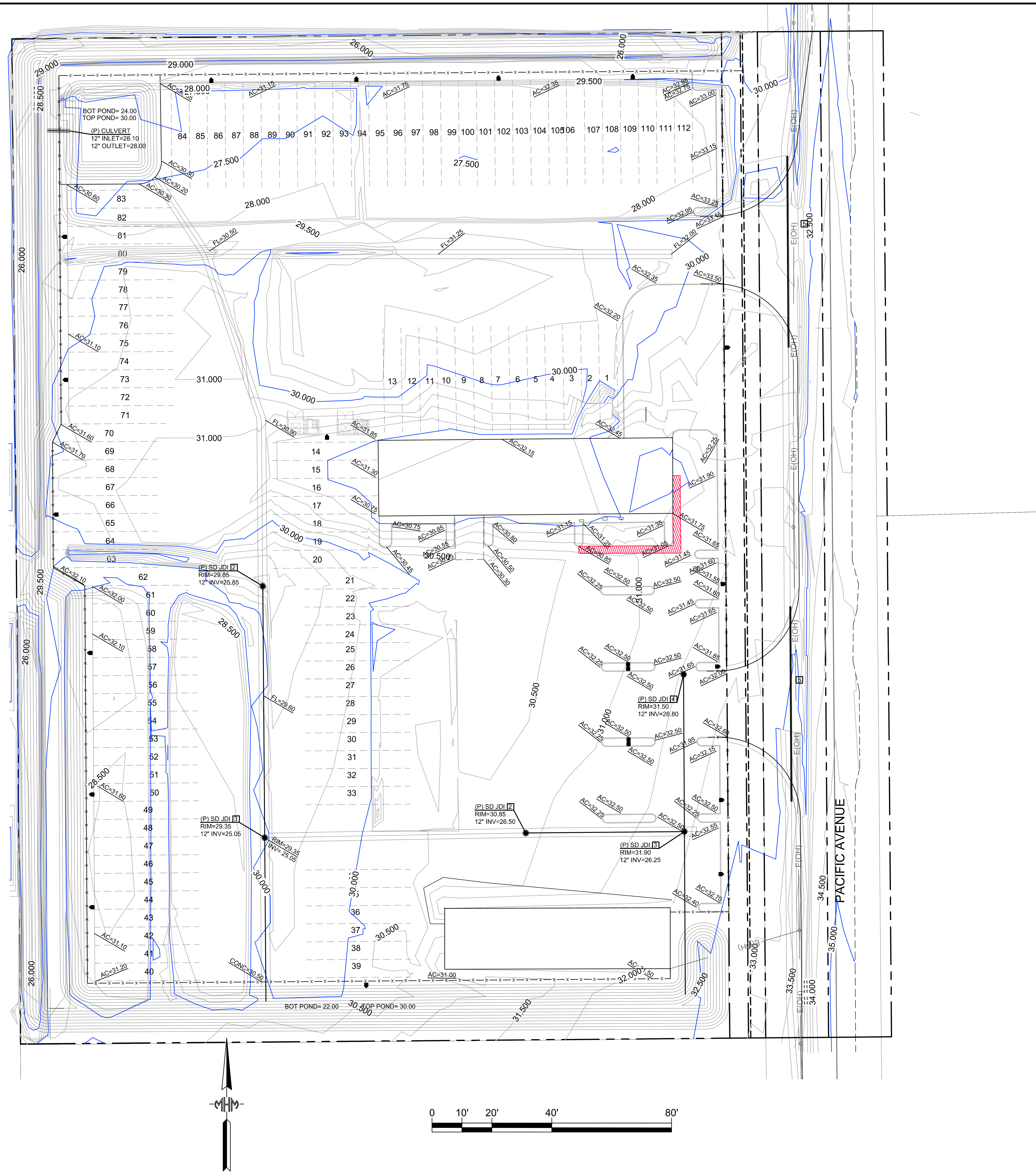
PLATINUM EXPRESS
NEW TRUCK YARD
7235 PACIFIC AVENUE
APN 35-220-017

ENGINEERED FILL PLAN

E-1
DATE: 03/08/2023
SHEET 4 SHEETS 9



STORM SEWER CONSTRUCTION NOTES

1. CONNECT TO EXISTING STORM DRAIN IN ACCORDANCE WITH COUNTY STANDARDS.
2. CONSTRUCT 18" STORM DRAIN DROP INLET PER DETAIL D-5 (ON SHT. 06) WITH A 1' SUMP AND A 6' VALLEY GUTTER 8" THICK WITH #4 BARS 18" OC EW.
3. CONSTRUCT 18" STORM DRAIN JUNCTION DROP INLET PER DETAIL D-7 (ON SHT. 06) WITH A 1' SUMP AND A 6' VALLEY GUTTER 8" THICK WITH #4 BARS 18" OC EW.
4. CONSTRUCTION 18" STORM DRAIN INLET PER DTAIL D-5 (ON SHT. 06) WITH A 1' SUMP.
5. CONSTRUCT 12" STORM DRAIN CULVERT UNDERNEATH ENTRANCE.

STORM SEWER SYSTEM GENERAL NOTES

1. ALL STORM SEWER SHALL BE CONSTRUCTED OF REINFORCED CONCRETE PIPE, SDR -35 PVC PLASTIC PIPE, OR SMOOTH WALLED HDPE PLASTIC PIPE (ALL PIPE WITH IN THE CITY RIGHT OF WAY SHALL BE RCP).

2. PRIOR TO PAVING, THE CONTRACTOR SHALL VACUUM TEST ALL STORM SEWER MANHOLES TO ENSURE NO LEAKAGE WILL OCCUR. TEST RESULTS SHALL BE PROVIDED TO THE CITY.

EARTHWORK SUMMARY

ESTIMATED QUANTITY OF EXCAVATION (COMPACTED CUBIC YARDS):	7,645 CU. YDS.
ESTIMATED QUANTITY OF EMBANKMENT (COMPACTED CUBIC YARDS):	10,370 CU. YDS.
ESTIMATED QUANTITY OF MATERIAL IMPORTED TO SITE (COMPACTED CUBIC YARDS):	2,725 CU. YDS.

THE ABOVE LISTED QUANTITIES REFLECT THE ENGINEER'S ESTIMATE OF THE VOLUMES OF MATERIAL CUT AND FILLED. THESE QUANTITIES ARE FOR DESIGN AND BONDING PURPOSES ONLY.

THE CONTRACTOR IS RESPONSIBLE FOR COMPUTING HIS OWN QUANTITIES FOR CONTRACT PURPOSES.

EARTHWORK ADJUSTMENTS ARE BASED ON DATA OBTAINED FROM THE SOILS AND GEOLOGY REPORT. FIELD CONDITIONS DURING CONSTRUCTION MAY VARY, RESULTING IN ACTUAL EARTHWORK QUANTITIES DIFFERENT FROM THOSE SHOWN ABOVE. THE ABOVE QUANTITIES DID NOT CONSIDER LIME TREATMENT.

GRADE ADJUSTMENTS MAY BE REQUIRED DURING CONSTRUCTION TO ACHIEVE A BALANCED DESIGN.

NO ADJUSTMENTS HAVE BEEN MADE TO QUANTITIES ABOVE FOR SHRINKAGE OR SWELL, THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN ADJUSTMENTS BASED ON THE GEOTECHNICAL REPORT RECOMMENDATIONS.

ANY MATERIAL EXPORTED USING COUNTY ROADWAYS SHALL BE SUBJECT TO COUNTY EXPORT FEE.

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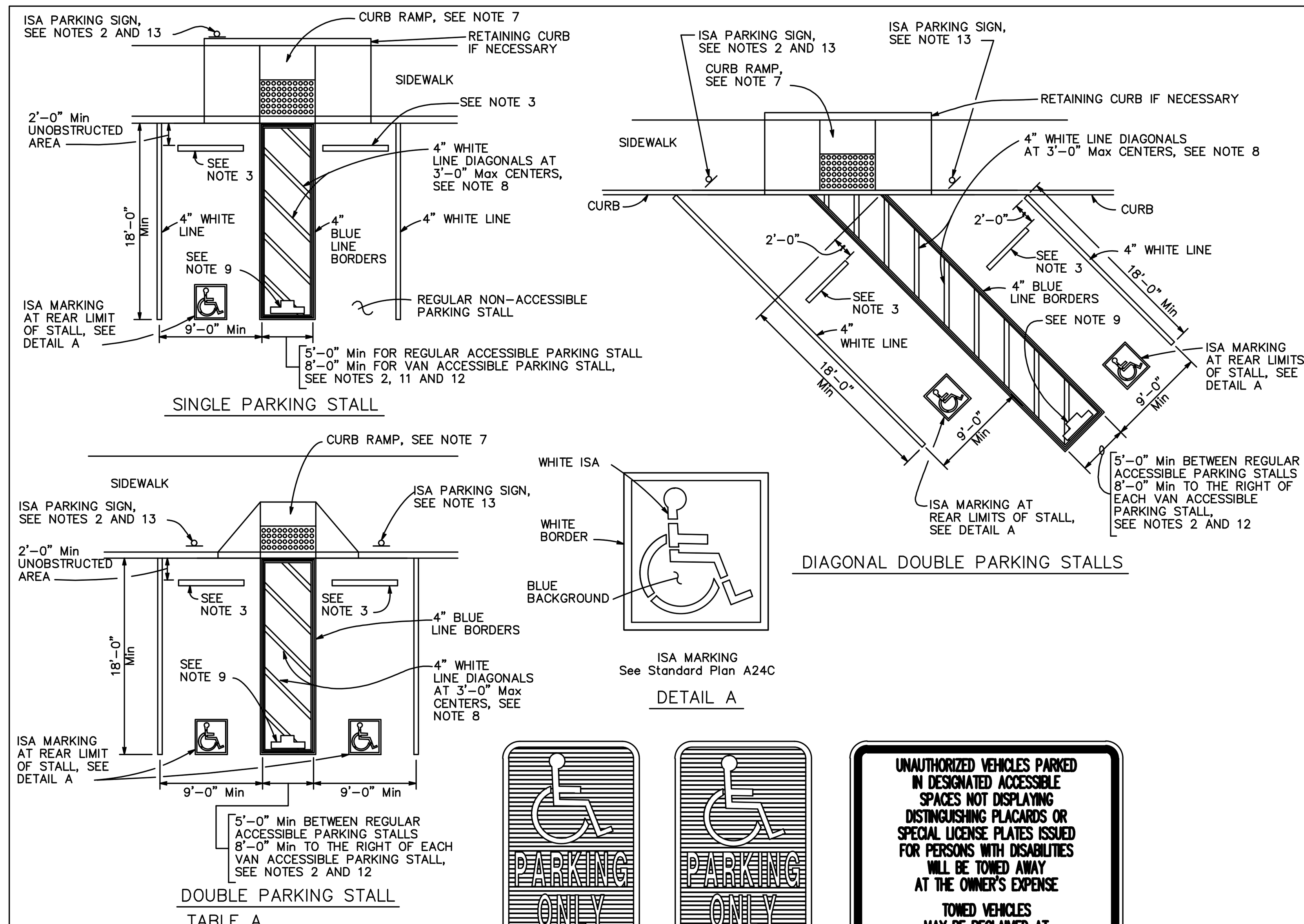
PLATINUM EXPRESS
NEW TRUCK YARD
7235 PACIFIC AVENUE
APN 35-220-017

GRADING PLAN

G-1
DATE: 03/08/2023
SHEET 5
SHEETS 9



SINGLE PARKING STALL

DOUBLE PARKING STALL

DIAGONAL DOUBLE PARKING STALLS

DETAIL A

OFF-STREET PARKING SIGNS
(Parking lot or garage)
See Note 6

TABLE A

TOTAL NUMBER OF PARKING SPACES PROVIDED IN PARKING FACILITY	MINIMUM NUMBER OF REQUIRED ACCESSIBLE PARKING SPACES
1–25	1
26–50	2
51–75	3
76–100	4
101–150	5
151–200	6
201–300	7
301–400	8
401–500	9
501–1000	2 PERCENT OF TOTAL
1001 AND OVER	20 PLUS 1 FOR EACH 100 OR FRACTION THEREOF OVER 1000

NOTES:

1. Accessible parking spaces serving a particular building shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance. In parking facilities that do not serve a particular building, accessible parking shall be located on the shortest accessible route of travel to an accessible pedestrian entrance of the parking facility.
2. One in every six accessible off–street parking stalls, but not less than one, shall be served by an accessible aisle of 8'–0" minimum width and shall be signed van accessible. The R7–8b sign shall be mounted below the R99B (CA) plaque or the R99C (CA) sign.
3. In each parking stall, a curb or parking bumper shall be provided if required to prevent encroachment of vehicles over the required width of walkways. Parking stalls shall be so located that persons with disabilities are not compelled to wheel or walk behind parked vehicles other than their own. For more parking bumper requirements, see the Standard Specifications.
4. Parking spaces and access aisles shall be level with surface slopes not exceeding 1.5% in all directions.
5. Table A shall be used to determine the required number of accessible parking stalls in each parking lot or garage.
6. Where Plaque R99B (CA), Sign R99C (CA) or Sign R7–8b are installed, the bottom of the sign or plaque panel shall be a minimum of 7'–0" above the surrounding surface.
7. Curb ramps shall conform to the details shown on Standard Plan A88A.
8. Blue paint, instead of white may be used for marking accessibility aisles in areas where snow may cause white markings to not be visible.
9. The words "NO PARKING", shall be painted in white letters no less than 1'–0" high and located so that it is visible to traffic enforcement officials. See Standard Plan A90B for details of the "NO PARKING" pavement marking.
10. A R100B (CA) sign shall be posted in a conspicuous place at each entrance to off–street parking facilities or immediately adjacent to and visible from each stall. The sign shall include the address where the towed vehicle may be reclaimed and the telephone number of the local traffic law enforcement agency.
11. Where a single (non–van) accessible parking space is provided, the loading and unloading access aisle shall be on the passenger side of the vehicle as the vehicle is going forward into the parking space.
12. Where a van accessible parking space is provided, the loading and unloading access aisle shall be 8'–0" wide minimum, and shall be on the passenger side of the vehicle as the vehicle is going forward into the parking space.
13. Accessible Parking Only Sign shall be Sign R99C (CA) or Sign R99 (CA) with Plaque R99B (CA).

LEGEND

ISA = International Symbol of Accessibility

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

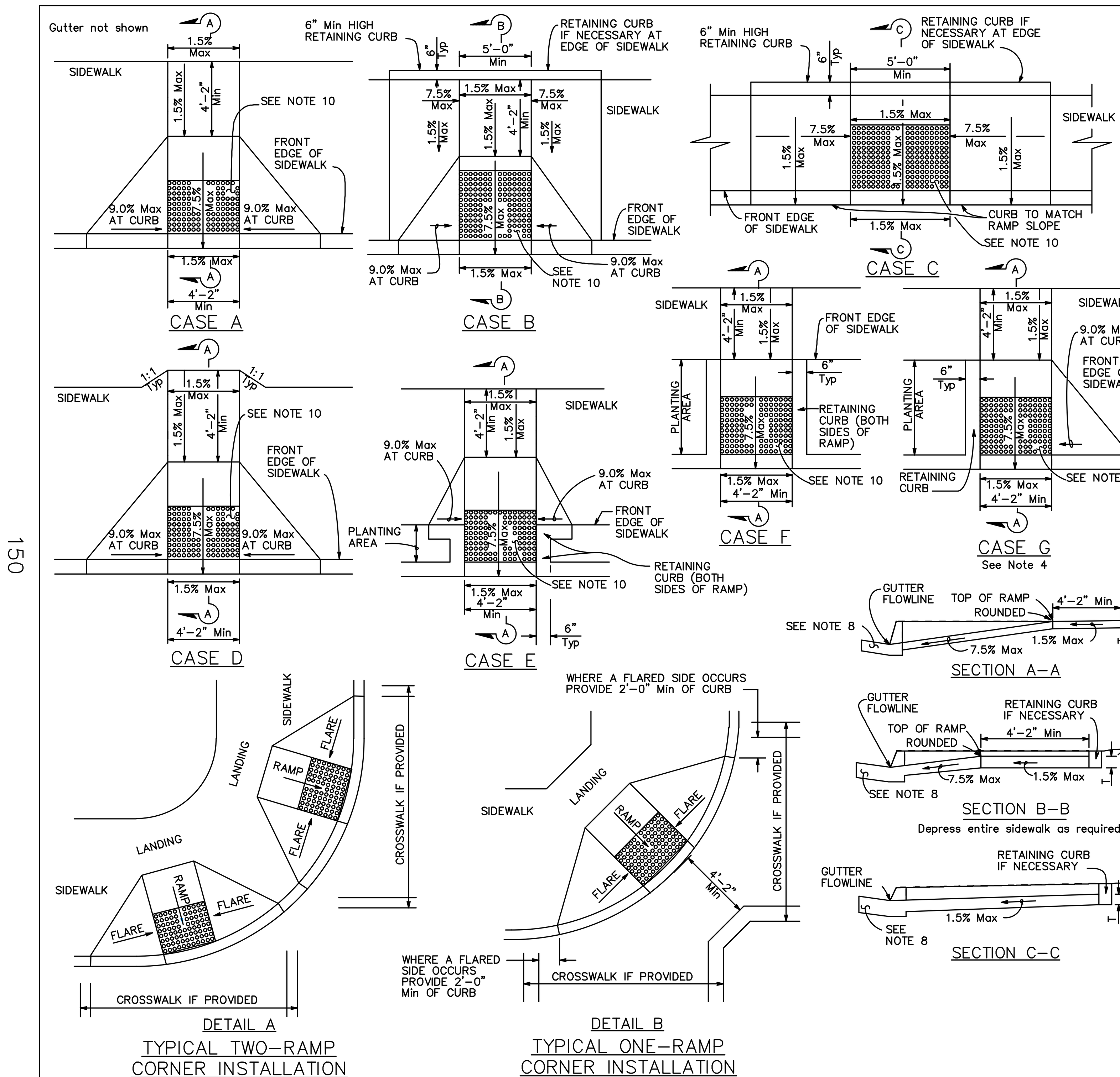
ACCESSIBLE PARKING
OFF–STREET
NO SCALE

A90A

2018 STANDARD PLAN A90A

152

150



CASE A

CASE B

CASE C

CASE D

CASE E

CASE F

CASE G
See Note 4

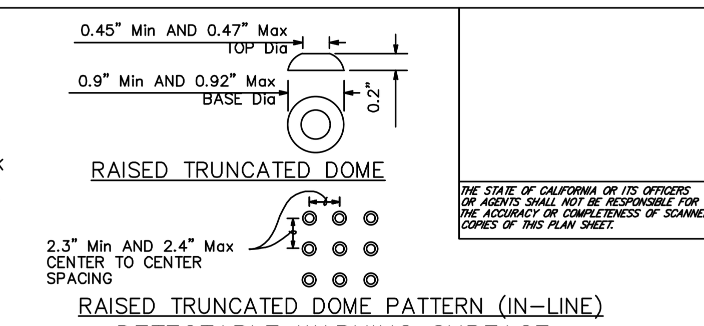
SECTION A–A

SECTION B–B
Depress entire sidewalk as required

SECTION C–C

DETAIL A
TYPICAL TWO–RAMP CORNER INSTALLATION
See Note 1

DETAIL B
TYPICAL ONE–RAMP CORNER INSTALLATION
See Notes 1 and 3



RAISED TRUNCATED DOME

RAISED TRUNCATED DOME PATTERN (IN–LINE)

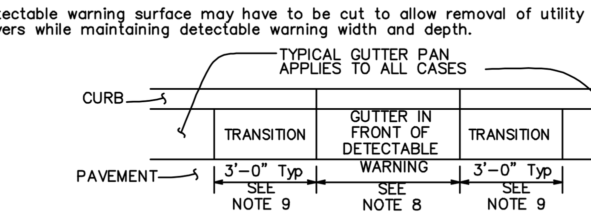
DETECTABLE WARNING SURFACE

See Note 10

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate. For specific site condition configuration, including the conform to existing sidewalk, see Project Plans.
2. If distance from curb to back of sidewalk is too short to accommodate ramp and 4'–2" platform (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B or C or may be widened as in Case D.
3. When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
4. As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
5. The ramp portion of the curb ramp is a typical rectangle, unless modified in the Project Plans.
6. Side slope of ramp flares vary uniformly from a maximum of 9.0% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
7. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
8. Counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 24 inches of the curb ramp shall not be steeper than 1V:20H (5.0%). Gutter pan slope shall not exceed 1" of depth for each 2'–0" of width.
9. Transition gutter pan slope from 1" of depth for each 2'–0" of width to match typical gutter pan slope per Standard Plan A87A.
10. The detectable warning surface will be a rectangle as shown at back of curb, unless modified in the Project Plans. Curb ramps shall have a detectable warning surface that extends the full width and 3'–0" depth of the ramp. Detectable warning surfaces shall extend the full width of the ramp except a maximum gap of 1 inch is allowed on each side of the ramp. Detectable warning surfaces shall conform to the requirements in the Standard Specifications.
11. Sidewalk and ramp thickness, "T", shall be 31/2" minimum.
12. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
13. Detectable warning surface may have to be cut to allow removal of utility covers while maintaining detectable warning width and depth.



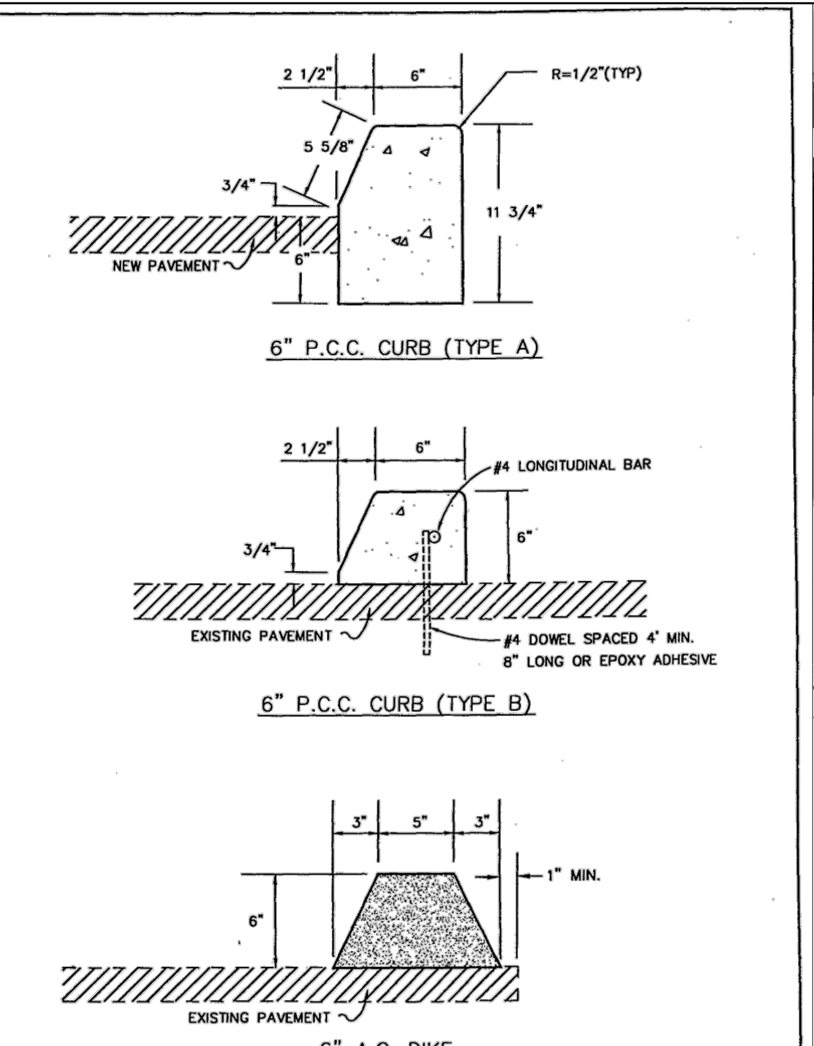
GUTTER PAN TRANSITION

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURB RAMP DETAILS
NO SCALE

A88A

2018 STANDARD PLAN A88A



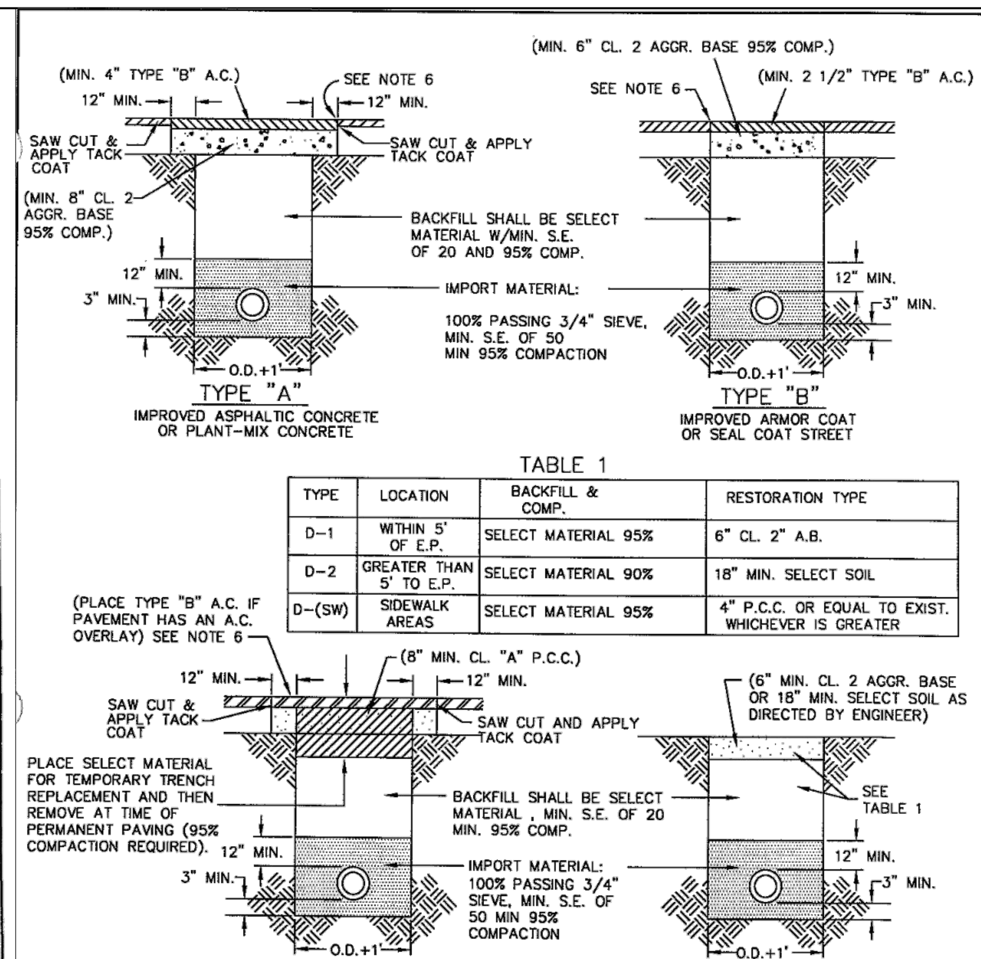
6" P.C.C. CURB (TYPE A)

6" P.C.C. CURB (TYPE B)

6" A.C. DIKE

11/8/05		K.X.
DATE	REVISIONS	BY

COUNTY OF SUTTER
BARRIER CURB
APPROVED 2/14/06 DATE
SCALE : NONE
DRN : PSO
DWG NO. H-2



TYPE "A"
IMPROVED ASPHALTIC CONCRETE OR PLANT–MIX CONCRETE

TYPE "B"
IMPROVED ARMOR COAT OR SEAL COAT STREET

TABLE 1

TYPE	LOCATION	BACKFILL & COMP.	RESTORATION TYPE
D–1	WITHIN 5' OF E.P.	SELECT MATERIAL 95%	6" CL. 2" A.B.
D–2	GREATER THAN 5' TO E.P.	SELECT MATERIAL 90%	18" MIN. SELECT SOIL
D–(SW)	SIDEWALK AREAS	SELECT MATERIAL 95%	4" P.C.C. OR EQUAL TO EXIST. WHICHEVER IS GREATER

TYPE "C"
PORTLAND CEMENT CONCRETE STREETS

TYPE "D"
UNIMPROVED STREETS ALLEYS OR EASEMENTS

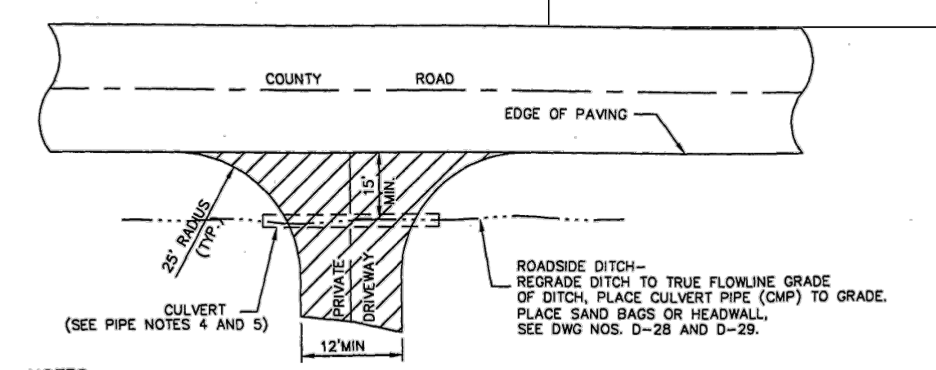
NOTES:

1. Type "A". "B" & "C" trenches require (2) two cuts: first cut initial trench width then 30 days after work has been completed it shall be saw cut 12" wider both sides.
2. Type "A", "B" & "C" trenches require placement and maintenance of temporary pavement (sc–800 cold mix) for a minimum of 30 days prior to permanent paving.
3. Structural thickness shown is minimum allowable. Other thickness of structural sections may be required by director if existing structural section exceeds these minimums.
4. All trench work 5' and deeper shall have approved trench sloping or shoring plan.
5. Paving surface at trench joints shall be sealed with asphalt emulsion 4" each side of joint after final compaction of asphalt concrete. Sealant shall be sanded as necessary to prevent traffic pickup.
6. Contact Sutter County Public Works (822–7450) 24 hrs. prior to trenching.
7. Contractor shall provide S.E. (Sand Equivalent) test Results for backfill and bedding material from geotech lab.
8. All trenches in the public R/W shall be either properly backfilled or sealed w/steel plates at the end of each working day.

6/22/04		K.X.
DATE	REVISIONS	BY

COUNTY OF SUTTER
TYPE I TRENCH RESTORATION
APPROVED 2/14/06 DATE
SCALE : NONE
DRN : PSO
DWG NO. H-28

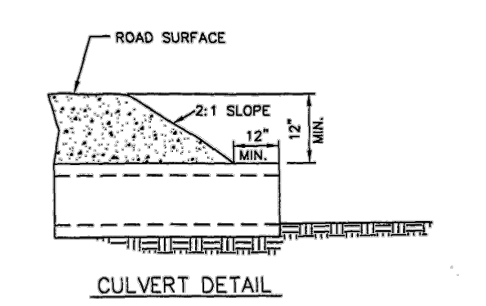
Mar. 24, 1999 – 14:20:06 DWG Name: R:\develop\SUT0202\Std-Det\Sutter\H-12.dwg Updated By: RLehutsky



NOTE:
1. Pipe shall be placed slightly below existing grade or at a grade specified by the County Road Department.
2. Pipe sections shall be joined together securely to prevent infiltration.
3. Used pipe is unacceptable.
4. Pipe diameter shall be 12" minimum.
5. Pipe placement shall be 100' maximum in length. Any pipe placement more than 100' in length shall install a DI or leave 5' gap between.

NOTES:

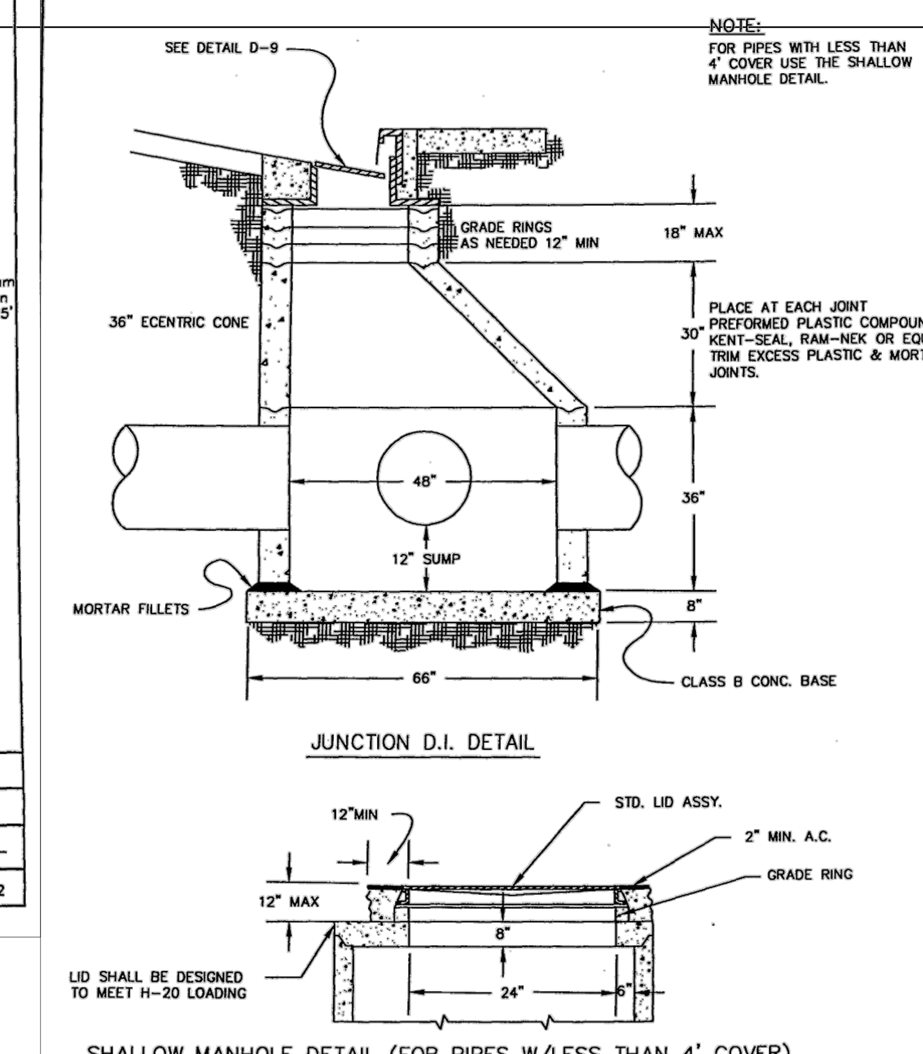
1. Prior to new paving, edge of existing paving at County road is to have a neat, straight, vertical sawcut to tie into.
2. Prior to placing asphalt concrete the sawcut edge is to have a SS–1 tack coat applied.
3. The driveway approach section shall be a minimum of 2 1/2" asphalt concrete on 4" Class II aggregate base rock for residential approaches and 4" asphalt concrete on 6" Class II aggregate base rock for commercial drive approaches. Asphalt concrete shall consist of AR4000, 1/2" maximum aggregate asphalt concrete. Base rock shall be compacted to 95%.
4. Asphalt concrete placement at County road is to be a flush butt joint. Placed to sawcut edge of road and sloped away from road.
5. Finish grade is to slope away from County road at a minimum 2% fall, 5% maximum fall.
6. Paving surface at butt joints shall be sealed with SS–1 emulsion 4" each side of joint after final compaction of asphalt concrete. Sealant shall be sanded as necessary to prevent traffic pick up.
7. All work shall conform to the Standard Specifications of the State of California, Department of Transportation, current edition.
8. Public Works shall be notified 24 hours after permit issue and prior to any work performed. Phone Number 822–7450
9. No additional drainage water direct to County right of way.
10. Appropriate agencies shall be contracted/notified of work prior to any work start for necessary utility permits and USA notification (1–800–227–2600) and markings by permittee/owner.



CULVERT DETAIL

11/3/05		K.X.
DATE	REVISIONS	BY

COUNTY OF SUTTER
DRIVEWAY CONNECTION
APPROVED 2/14/06 DATE
SCALE : NONE
DRN : PSO
DWG NO. H-12



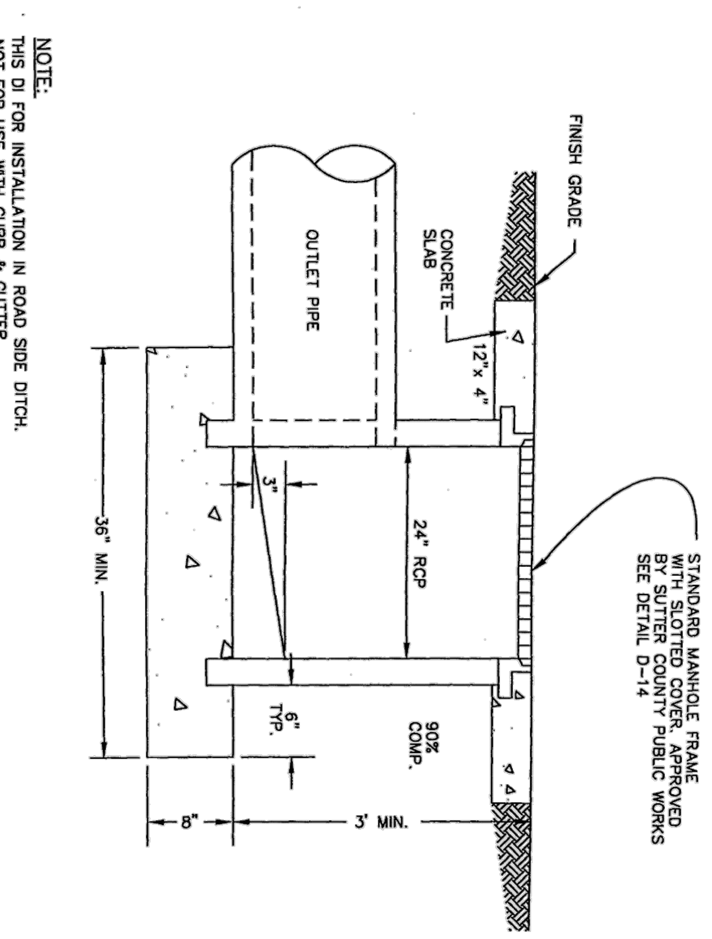
JUNCTION D.I. DETAIL

SHALLOW MANHOLE DETAIL (FOR PIPES W/LESS THAN 4' COVER)

6/11/04		K.X.
DATE	REVISIONS	BY

COUNTY OF SUTTER
DRAINAGE INLET
APPROVED 2/14/06 DATE
SCALE : NONE
DRN : PSO
DWG NO. D–7

NOTE:
THIS DI FOR INSTALLATION IN ROAD SIDE DITCH.
NOT FOR USE WITH CURB & GUTTER.



6/11/04		K.X.
DATE	REVISIONS	BY

COUNTY OF SUTTER
FIELD DROP INLET
APPROVED 2/14/06 DATE
SCALE : NONE
DRN : PSO
DWG NO. D–4

REGISTERED PROFESSIONAL ENGINEER
JOHN S MALLEN
STATE OF CALIFORNIA

REV.	DATE	BY	APPR.	DESCRIPTION

DESIGNED BY: KAS
DRAWN BY: KAS
CHECKED BY: JSM
JOB NO.: 22-117
FILE NAME: 22117MAST

VERIFY SCALE
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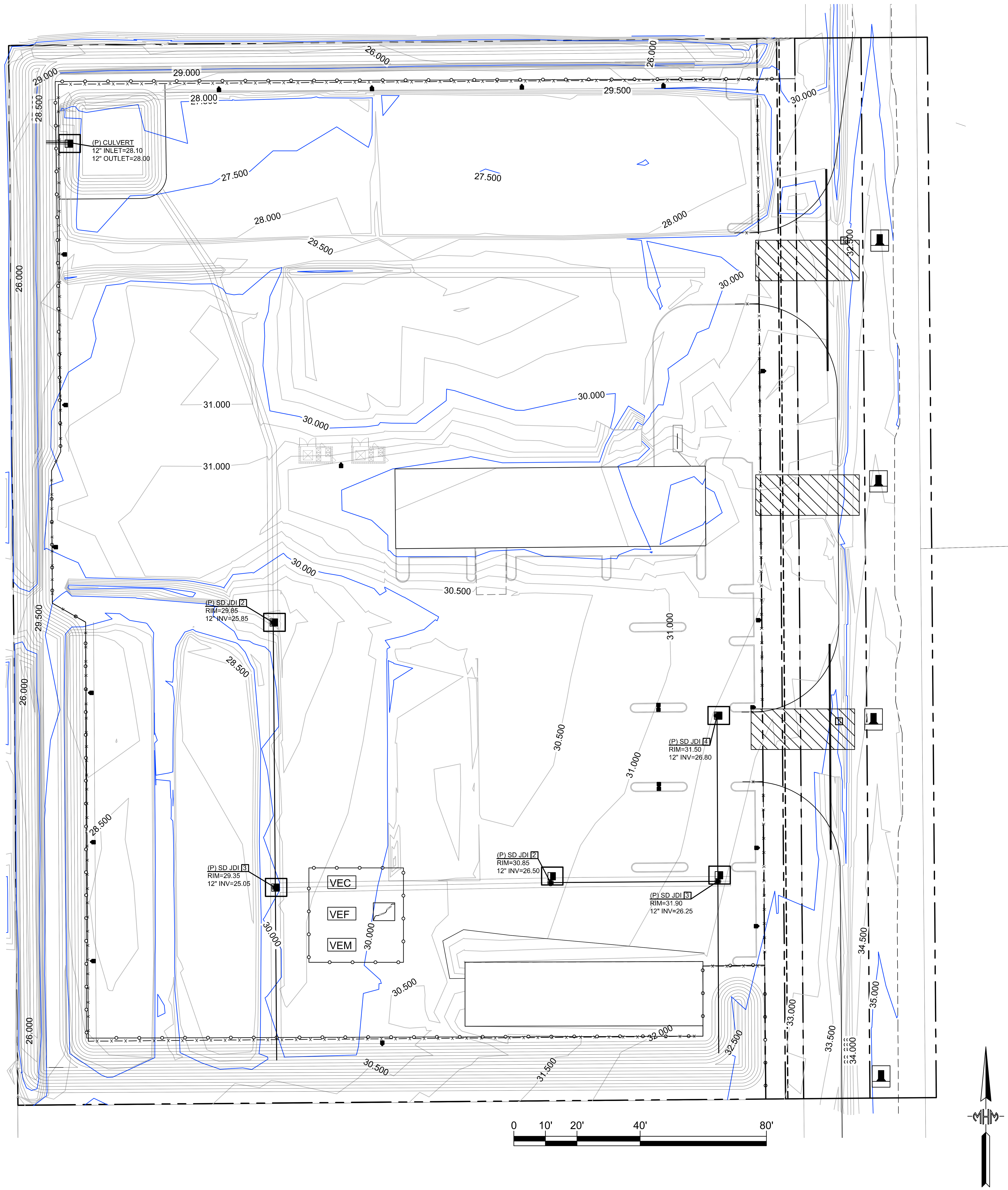
ENGINEERING-SURVEYING
1204 "E" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485/Fax(530)742-5639

PLATINUM EXPRESS
NEW TRUCK YARD
7235 PACIFIC AVENUE
APN 35-220-017

CONSTRUCTION DETAILS

DT-1
DATE: 03/08/2023
SHEET 6
SHEETS 9



NOTES:

1.) CONTRACTOR SHALL KEEP THE SITE CLEAN UTILIZING "GOOD HOUSEKEEPING" PRACTICES DESCRIBED IN THE PROJECT "STORM WATER POLLUTION PREVENTION PLAN" (SWPPP).

2.) CONCRETE WASTE SHALL NOT BE DISPOSED OF TO THE CITY STORM DRAIN SYSTEM AT ANY TIME. ALL CONCRETE WASTE SHALL BE DISPOSED OF IN CONTRACTOR DESIGNATED CLEAN OUT AREAS AND IN CONFORMANCE WITH THE SWPPP. WASHED OUT CONCRETE SHALL BE ALLOWED TO DRY AND REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROPRIATE LOCATION.

3.) CONTRACTOR SHALL DESIGNATE A PERSON(S) TO CHECK THE SITE ON A DAILY BASIS. THE REPRESENTATIVE SHALL CHECK ALL EROSION CONTROL DEVICES AFTER EACH RAIN EVENT AND PRIOR TO ANY FORECASTED RAIN. THE SITE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO OCTOBER 1 AND READY FOR ANY STORM DURING THE WINTER AND SPRING.

4.) CONTRACTOR SHALL KEEP AN INSPECTION AND MAINTENANCE LOG IN ACCORDANCE WITH THE SWPPP.

5.) THIS EROSION CONTROL PLAN AND SWPPP SHALL BE KEPT ONSITE AT ALL TIMES DURING CONSTRUCTION.

6.) THE STABILIZED CONSTRUCTION ENTRANCE(S) SHALL BE INSPECTED MONTHLY AND AFTER EACH RAINFALL. GRAVEL MATERIAL SHALL BE REPLACED WHEN SURFACE VOIDS ARE VISIBLE WITH 1' MIN - 3" MAX. WASHED ROCK.

7.) ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL THE DISTURBED AREAS ARE STABILIZED. UNFORESEEN SITUATIONS MAY ARISE DURING CONSTRUCTION AND CHANGES TO THIS EROSION CONTROL PLAN SHALL BE MADE TO MEET THE FIELD CONDITIONS. THE CHANGES SHALL BE APPROVED IN ADVANCE OF BEING IMPLEMENTED BY THE CITY OF YUBA CITY.

8.) IN AREAS WHERE SOIL IS EXPOSED, PROMPT REPLANTING WITH NATIVE COMPATIBLE DROUGHT-RESISTANT VEGETATION SHALL BE PERFORMED. NO AREAS SHALL BE LEFT EXPOSED THROUGHOUT THE WINTER.

9.) TRACKED SEDIMENT FROM THE SITE SHALL BE CLEANED DAILY USING A STREET SWEEPER. ALL SOLID WASTE SHALL BE PICKED UP AND DISPOSED OF IN THE PROPER MANNER.

10.) WHEN WINDS EXCEED 20 MPH ALL GRADING OPERATIONS SHALL STOP

11.) IN THE EVENT OF RAIN OR HEAVY WINDS, ALL STOCKPILES SHALL BE COVERED.

LEGEND

- SILT FENCE, SC-1
- STABILIZED CONSTRUCTION ENTRANCE, TC-1
- VEC — VEHICLE & EQUIPMENT CLEANING, NS-8
- VEF — VEHICLE & EQUIPMENT FUELING, NS-9
- VEM — VEHICLE & EQUIPMENT MAINTENANCE, NS-10
- STORM DRAIN INLET PROTECTION , SC-10
- STREET SWEEPING AND VACUUMING , SC-7
- CONCRETE WASTE MANAGEMENT , WM-8

REFER TO SWPPP PLANS FOR FURTHER DETAILS

REGISTERED PROFESSIONAL ENGINEERS — JOHN S MALLEN — NO. C52345 — STATE OF CALIFORNIA

REV.	DATE	BY	APPR.	DESCRIPTION

DESIGNED BY: KAS
DRAWN BY: KAS
CHECKED BY: JSM
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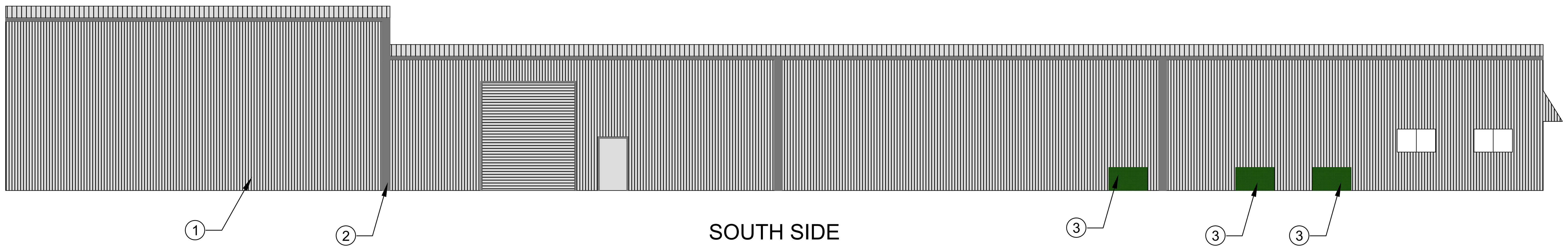
WATER POLLUTION
CONTROL DRAWING

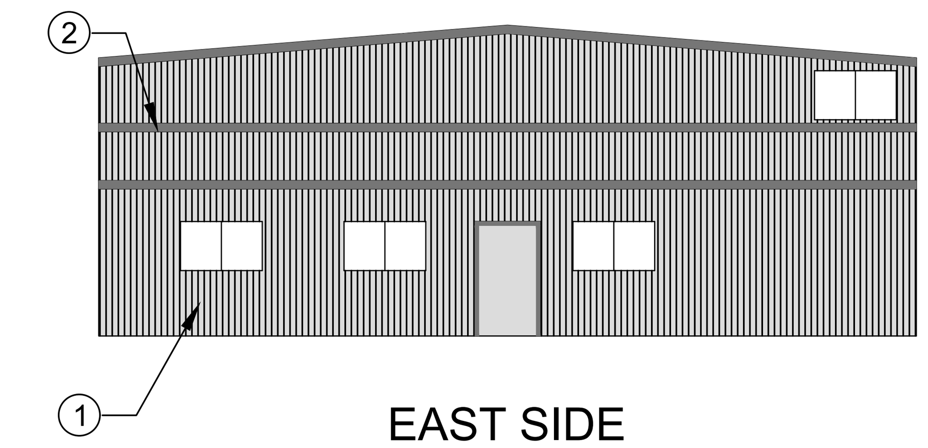
WPCD-1
DATE: 03/08/2023
SHEET 7 — SHEETS 9

CONSTRUCTION NOTES:

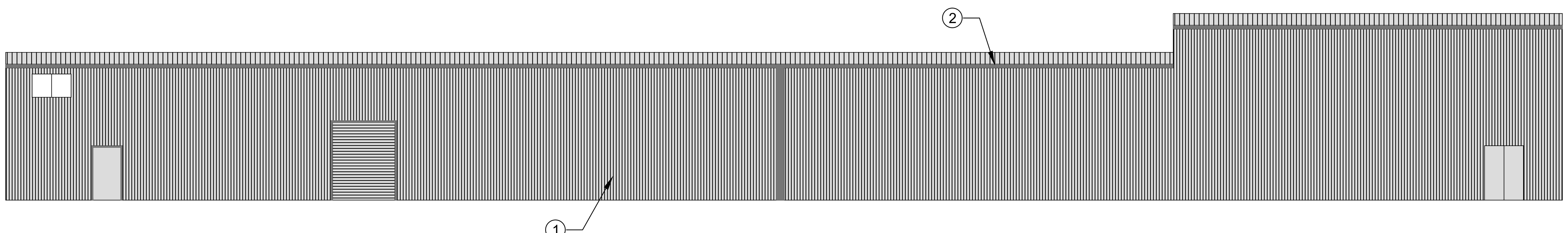
1. BUILDING COLOR SHALL BE ASH GRAY (SR. 47 SRI 55)
2. TRIM AROUND DOORS, BAYS, AND GUTTERS SHALL BE BURNISHED SLATE (SR. 28 SRI 29)
3. HVAC GROUND MOUNTED AIR COMPRESSORS TO BE SCREENED FROM VIEW BY LATTICE SCREEN COVER OR USE OTHER APPROVED METHOD PER SUTTER COUNTY REQUIREMENTS



SOUTH SIDE



EAST SIDE



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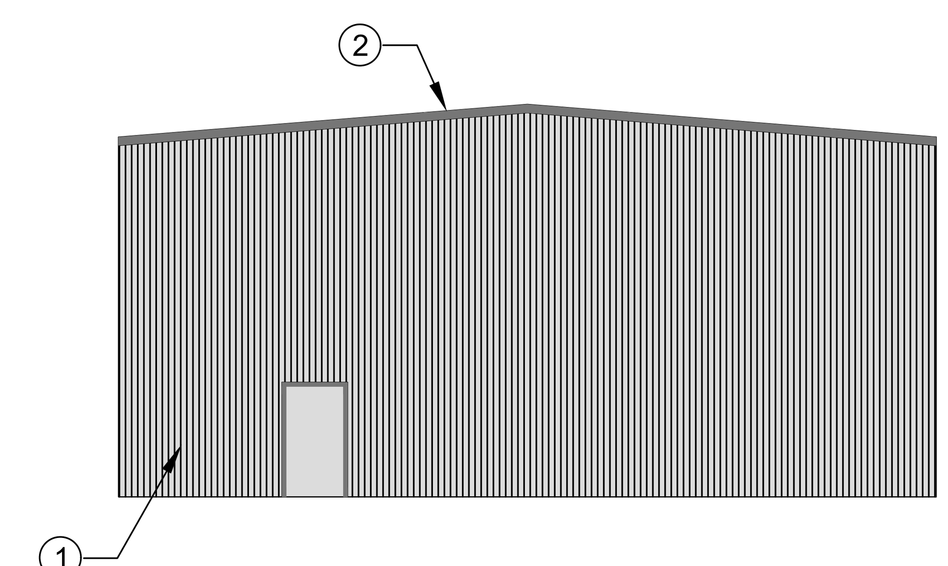

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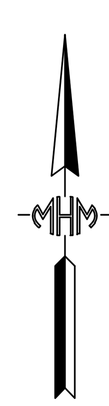

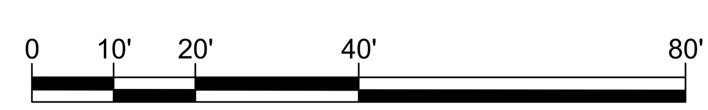

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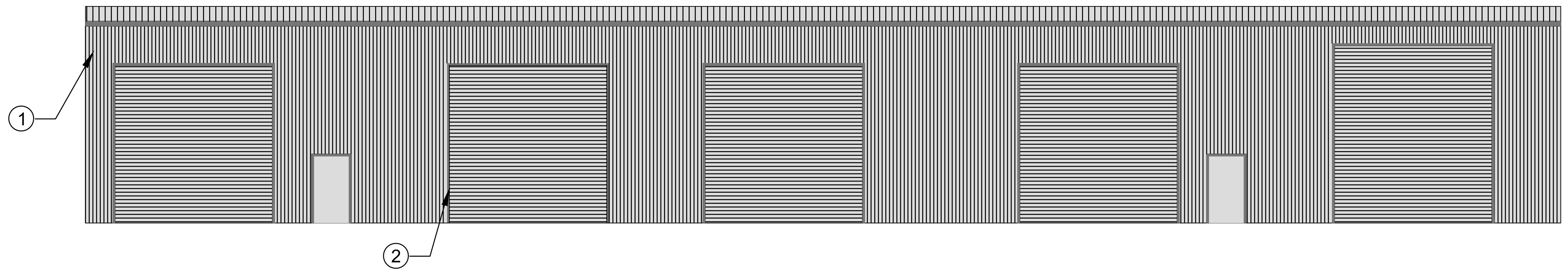
ELEVATION PLANS FOR NORTHERN BUILDNG

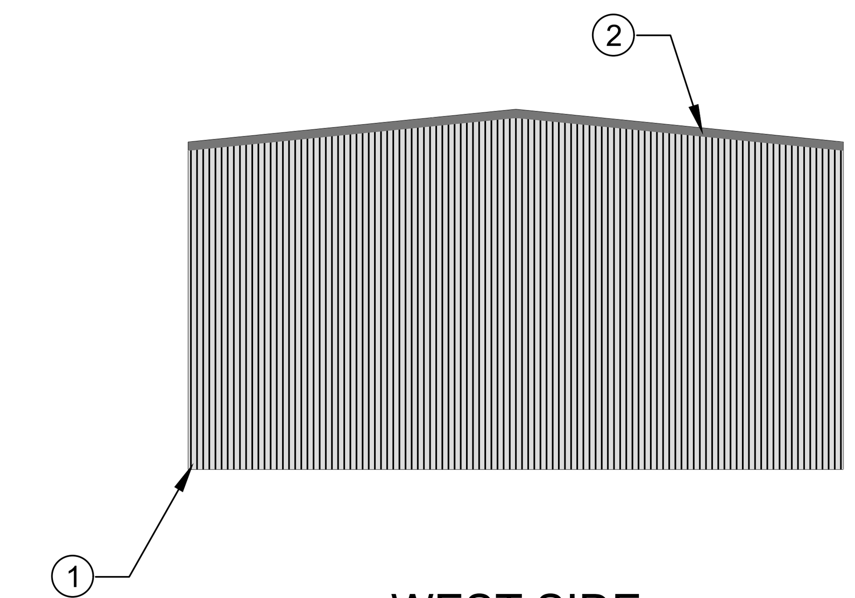
ELE-1
DATE: 01/10/2023
SHEET 8
SHEETS 9

CONSTRUCTION NOTES:

1. BUILDING COLOR SHALL BE ASH GRAY (SR. 47 SRI 55)
2. TRIM AROUND DOORS, BAYS, AND GUTTERS SHALL BE BURNISHED SLATE (SR. 28 SRI 29)



NORTH SIDE



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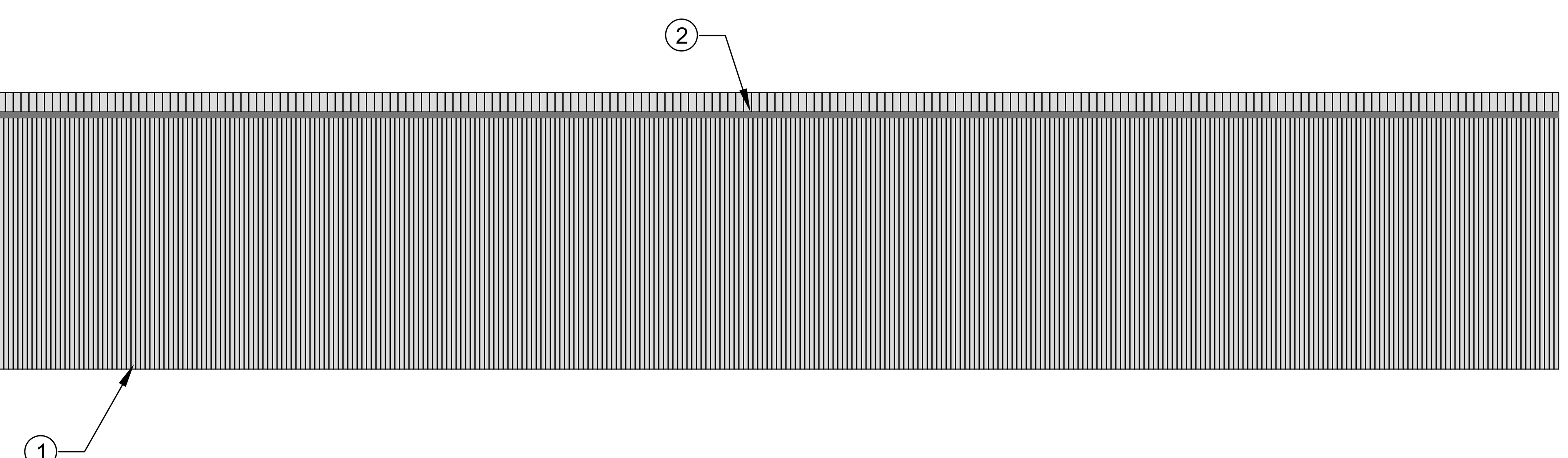
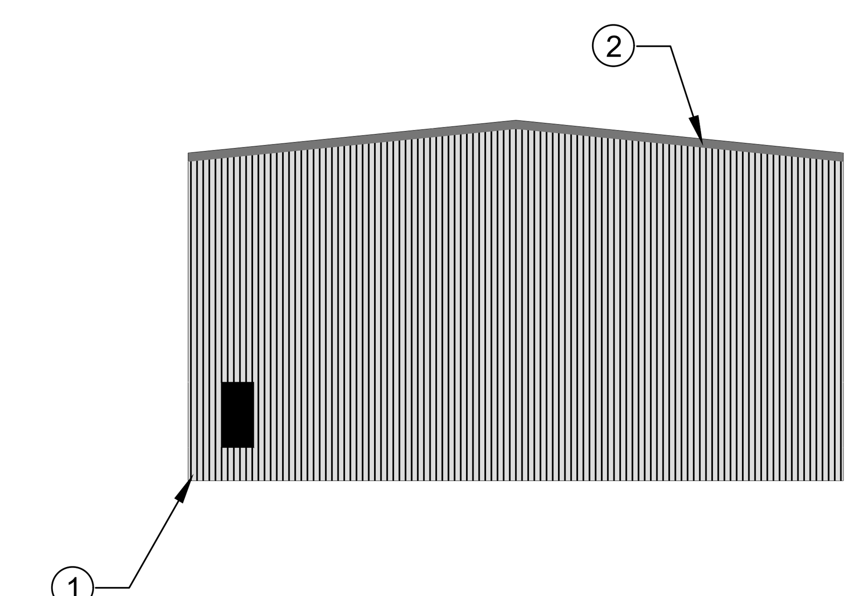


SOUTH SIDE



EAST SIDE

0 10' 20' 40' 80'

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APN 35-220-017

ELEVATION PLANS FOR
SOUTH BUILDING

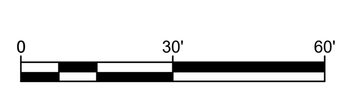
ELE-2
DATE: 01/10/2023
SHEET 9
SHEETS 9

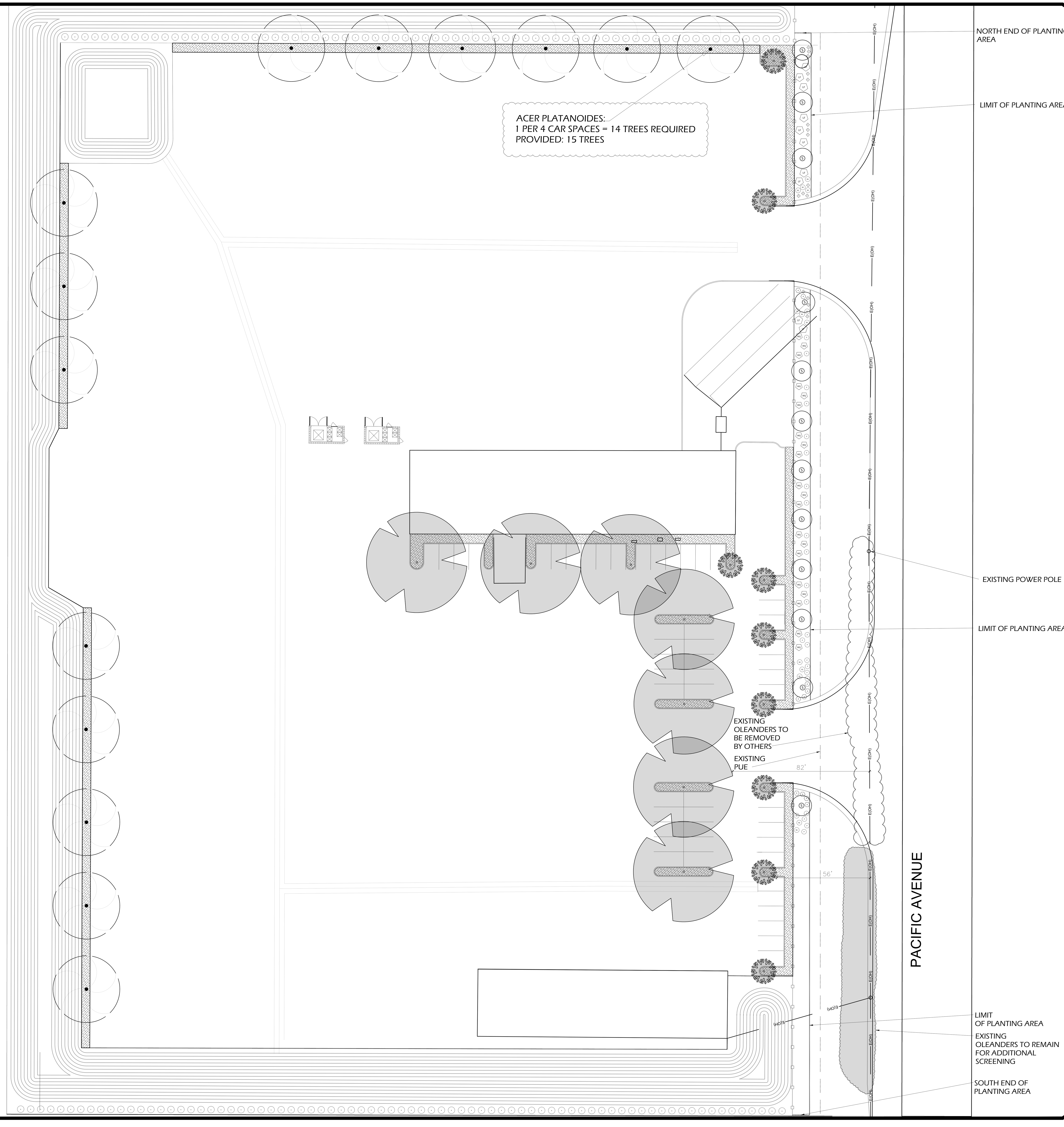
TREE PLANTING LEGEND

SYMBOL	SIZE	BOTANICAL NAME	COMMON NAME	QTY
	24" BOX	CYCAS REVOLUTA	SAGO PALM	15
	15 GAL	ACER PLATANOIDES	NORWAY MAPLE	15
	15 GAL	FRAXINUS AMERICANA 'AUTUMN PURPLE'	AUTUMN PURPLE ASH	7
	15 GAL	LAGERSTROEMIA INDICA 'DYNAMITE'	CRAPE MYRTLE, RED	9

SHRUB & GROUNDCOVER PLANTING LEGEND

SYMBOL	SIZE	BOTANICAL NAME	COMMON NAME	QTY
A	5 GAL	AGAVE PARRYI	PARRY'S AGAVE	10
LF	5 GAL	LEUCOPHYLLUM FRUTESCENS 'COMPACTA'	TEXAS SAGE	10
MQ	5 GAL	PHORMIUM TENAX 'MAORI QUEEN'	NEW ZEALAND FLAX	20
X	5 GAL	XYLOSMA CONGESTUM	SHINY XYLOSMA	150
P	1 GAL	PEROVSKIA 'LITTLE SPIRE'	RUSSIAN SAGE	31
P	1 GAL	PHORMIUM TENAX 'AMAZING RED'	NEW ZEALAND FLAX	13
SG	1 GAL	SALVIA GREGGII 'FURMAN'S RED'	AUTUMN SAGE	14
	1 GAL	TRACHELOSPERMUM JASMINOIDES	STAR JASMINE	325 @ 60" oc





BOTANICA LANDSCAPES

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LICENSE No. 409125 DIR No. 1000003139
P: (530) 671-1029
F: (530) 671-3326
E: estimating@botanica.net

PLANTING PLAN
SCALE: 1" = 30'

PLATINUM EXPRESS
7235 PACIFIC AVENUE
PLEASANT GROVE, CA
95993
APN: 035-220-017

REVISIONS

1	6-21-2022
2	8-1-2022
3	8-10-2022
4	1-31-2023
5	3-20-2023

DRAWN BY:
C. TOMEI

DATE: 3-14-2022

APPROVED:

COMMERCIAL

LICENSE:
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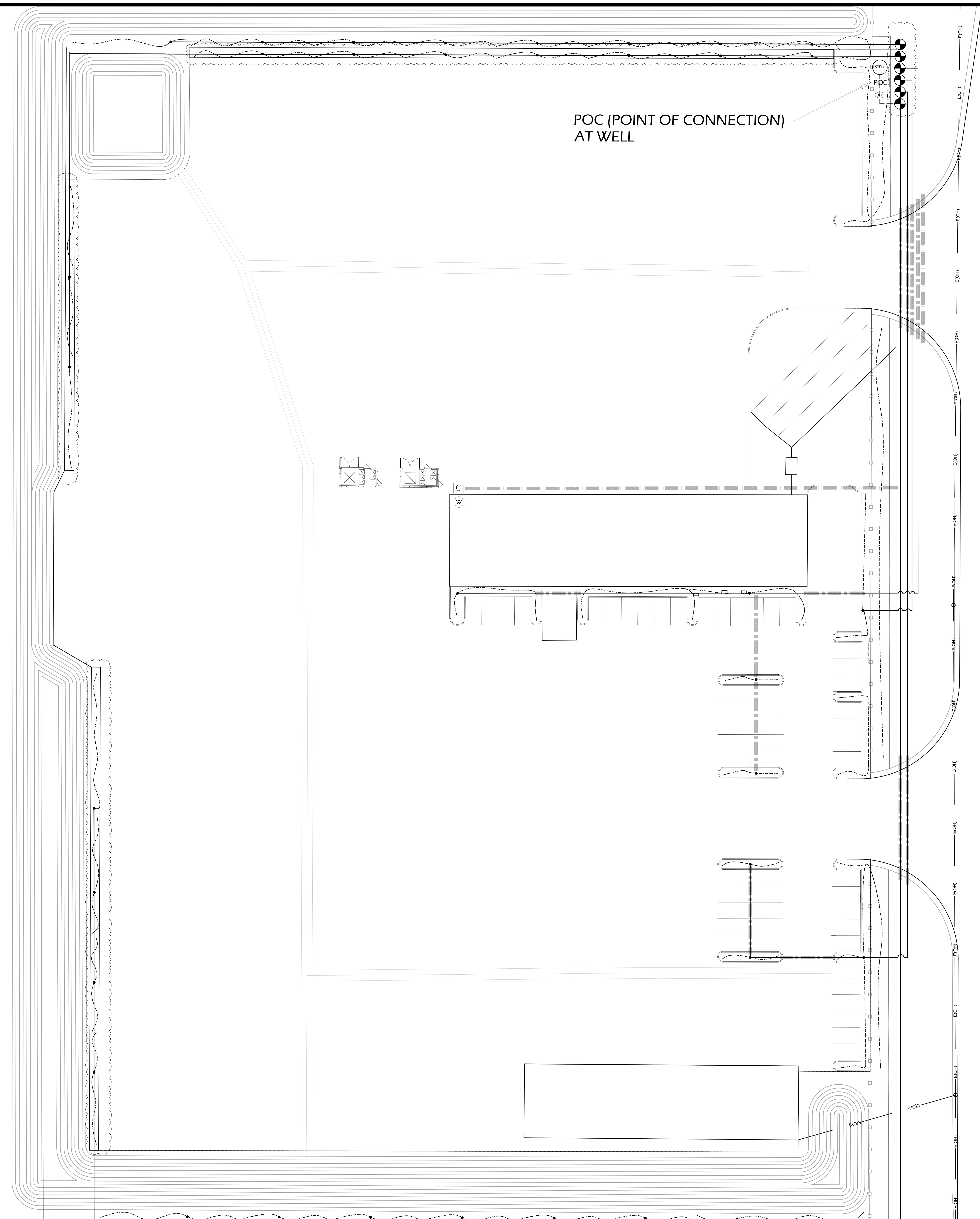
L1

1 OF SHEET 4

IRRIGATION LEGEND

SYMBOL	MFR/MODEL	DESCRIPTION
BFP	1" FEBCO (825Y)	BACKFLOW PREVENTER
	1" RAIN BIRD (DVF-100) + (PRF100RBY)	DRIP CONTROL VALVE
W	RAIN BIRD (WR2RFC)	WIRELESS RAIN/FREEZE SENSOR
●	PVC TO DRIP TRANSITION	PVC TEE
C	RAIN BIRD (ESP4ME3)	WALL MOUNTED 4 STATION INDOOR/OUTDOOR SMART CONTROLLER
	RAIN BIRD (XBS500)	1/2" POLYETHYLENE TUBING WITH 1/4" SPAGHETTI TUBING & 2 GPH FLAG EMITTERS SEE EMITTER SCHEDULE BELOW.
	RAIN BIRD (XB10PC)	EMITTER SCHEDULE: 1 PER 1 GALLON PLANT 1 PER 5 GALLON PLANT 2 PER 15 GALLON PLANT
— — — — —	1-1/2" SCHEDULE 40	MAINLINE
———	1" SCHEDULE 40	LATERAL
	SCHEDULE 40	SLEEVE - 2X DIAMETER OF PIPE TO BE SLEEVED.
	1-1/2" SCHEDULE 40	CONDUIT



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IRRIGATION NOTES

1. THE IRRIGATION SYSTEM SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES. THE LANDSCAPE CONTRACTOR SHALL OBTAIN ALL PERMITS FOR THE WORK AS REQUIRED BY THE CITY AND/OR COUNTY.

2. THIS DESIGN IS DIAGRAMATIC. ALL PIPING, VALVES AND OTHER EQUIPMENT SHOWN IS FOR DESIGN CLARITY AND SHALL BE INSTALLED IN PLANTER OR LAWN AREAS WHENEVER POSSIBLE. INSTALLATION TO CONFORM WITH CONSTRUCTION DETAILS.

3. VERIFY EXISTING WATER PRESSURE AND FIELD DIMENSIONS. DISCREPANCIES SHALL BE REPORTED TO THE OWNER OR APPROPRIATE REPRESENTATIVE IN WRITING PRIOR TO ANY COMMENCEMENT OF WORK. IF NOTIFICATION IS NOT MADE, THE LANDSCAPE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY AND COST FOR NECESSARY REQUIRED REVISION TO WORK.

4. USE COMMON TRENCHES WHENEVER POSSIBLE. INSTALL PRESSURIZED MAINLINES WITH A MINIMUM OF 18" COVER. INSTALL LATERAL PIPES WITH A MINIMUM 12" COVER. ALL PIPES UNDER PAVING TO HAVE MINIMUM 24" COVER.

5. ALL MATERIAL IS SPECIFIC TO THIS DESIGN. THE IRRIGATION SYSTEM HAS BEEN DESIGNED ACCORDING TO THE OPERATIONAL CHARACTERISTICS OF THE SPECIFIED EQUIPMENT. IF ANY CHANGES OR SUBSTITUTIONS ARE MADE WITHOUT APPROVED WRITTEN CALCULATIONS, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY AND COSTS FOR THE RESULT OF THOSE CHANGES.

6. THE CONTRACTOR SHALL WARRANT THE SYSTEM FREE FROM DEFECTS IN WORKMANSHIP FOR A PERIOD OF ONE YEAR COMMENCING UPON FINAL ACCEPTANCE OF THE WORK. ALL REPAIRS NECESSARY DURING THAT PERIOD AS A RESULT OF POOR WORKMANSHIP SHALL BE MADE AT NO COST TO THE OWNER. PROVIDE TO OWNER TWO WRITTEN, WET SIGNED COPIES OF GUARANTEE ON COMPANY LETTERHEAD.

PLANTING NOTES

1. THE LANDSCAPE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING IN ORDER TO DETERMINE EXISTING CONDITIONS. ADDITIONAL COMPENSATION FROM ALLEGED IGNORANCE OF EXISTING CONDITIONS AND THEIR EFFECT UPON THE COST OF CONSTRUCTION WILL NOT BE SUBSEQUENTLY APPROVED.

2. PRIOR TO SHRUB PLANTING, SPRAY ALL WEEDS WITH SYSTEMIC HERBICIDE 'ROUND UP' OR EQUAL. FOLLOW MANUFACTURER'S INSTRUCTIONS. REMOVE ALL DEAD WEEDS FROM SITE IF NECESSARY. PERFORM SOIL ANALYSIS PRIOR TO AMENDING SOIL - SOIL ANALYSIS AMENDMENT RECOMMENDATIONS SUPERCEDE RATES OF APPLICATION GIVEN HERE. FOR BIDDING PURPOSES, ASSUME ALL TURF AND PLANTING AREAS TO BE AMENDED AS FOLLOWS PER 1000 SQUARE FEET: (3) CY NITROGEN STABILIZED ORGANIC AMENDMENT OR COMPOST, AND 25 POUNDS BEST 6-24-24 COMMERCIAL FERTILIZER. ROTOTILL EVENLY TO A DEPTH OF 6" AND RAKE ALL AREAS BACK TO A SMOOTH EVEN SURFACE.

3 ALL PLANTS TO BE IN A HEALTHY, DISEASE FREE CONDITION. PLANTS THAT HAVE BROKEN BRANCHES, INJURED TRUNKS, OR THAT HAVE SUFFERED WILTING, WILL NOT BE ACCEPTED FOR INSTALLATION. PLANT TREES AND SHRUBS PER DETAILS. WATER ALL PLANTS IMMEDIATELY AFTER PLANTING. PRIOR TO MULCHING, APPLY PRE-EMERGENT HERBICIDE FOR WEED CONTROL, RONSTAR G OR EQUAL TO ALL PLANTERS THAT REQUIRE ROCK MULCH. TREES PLANTED 5' OR CLOSER TO WALKS, DRIVEWAYS, AC PAVEMENT OR OTHER HARD SURFACE AREAS TO HAVE ROOT BARRIER INSTALLED PER MANUFACTURER'S RECOMMENDATION - INSTALL 18" DEEP x 24" PANEL TYPE ROOT BARRIER BY NDS, ROOT SOLUTIONS OR EQUAL. SHEET MATERIAL WITH REINFORCING RIBS IS ACCEPTABLE FOR IRREGULAR SHAPED PLANTERS; INSTALL 10 LINEAR FEET OF ROOT BARRIER PER TREE, CENTERED ON TRUNK. ARBOR GUARD TRUNK PROTECTORS REQUIRED FOR TREES INSTALLED IN LAWN AREAS - SHOVEL CUT LAWN 12" AWAY FROM TRUNK AND INSTALL LAYER OF WALK-ON BARK MULCH ALSO.

4. ALL TREES AND SHRUBS SHALL BE GUARANTEED FOR A PERIOD OF (90) DAYS AND GROUND COVER AND PERENNIALS TO BE GUARANTEED FOR A PERIOD OF (30) DAYS UPON FINAL ACCEPTANCE OF THE WORK IN FULL. ALL PLANTS THAT ARE NOT IN HEALTHY, ACTIVELY GROWING CONDITION AT THE END OF THE GUARANTEE PERIOD SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.

5. PROVIDE A 3" LAYER OF "WALK ON" BARK MULCH AT PROPOSED SHRUB AND GROUNDCOVER PLANTING AREAS.

WATER CALCULATIONS TABLE

HYDROZONE#	PLANT FACTOR (PF)	IRRIGATION METHOD	IRRIGATION EFFICIENCY (IE)	ETAF (PF/IE)	LANDSCAPE AREA (FT²)	ETAF x AREA	ESTIMATED TOTAL WATER USE (ETWU) IN GALLONS PER YEAR
HZ #1	0.30	DRIP	0.81	0.37	5,337	1,975	57,184
HZ#2	0.30	DRIP	0.81	0.37	3,934	1,688	48,874
HZ#3	0.30	DRIP	0.81	0.37	1,698	628	18,183
HZ#4	0.30	DRIP	0.81	0.37	2,129	787	22,786
HZ#5	0.30	DRIP	0.81	0.37	3,969	1,469	45721
TOTALS					17,067	6,547	192,748
MAWA							192,748

SHADE CALCULATIONS TABLE

VARIETY	FULL	3/4	HALF	1/4	TOTAL FT²
ACER PLATANOIDES					*1 PER 4 CAR SPACES 14 REQUIRED 15 PROVIDED
FRAXINUS AMERICANA	7x962	3x133	10x89		6,734
LAGERSTROEMIA		3x133	10x89		1,289
TOTAL TREE SHADE:					8,023
TOTAL PARKING AREA					9,188
PERCENT SHADE					87%

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NOTE & CALCULATIONS

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APPROVED:

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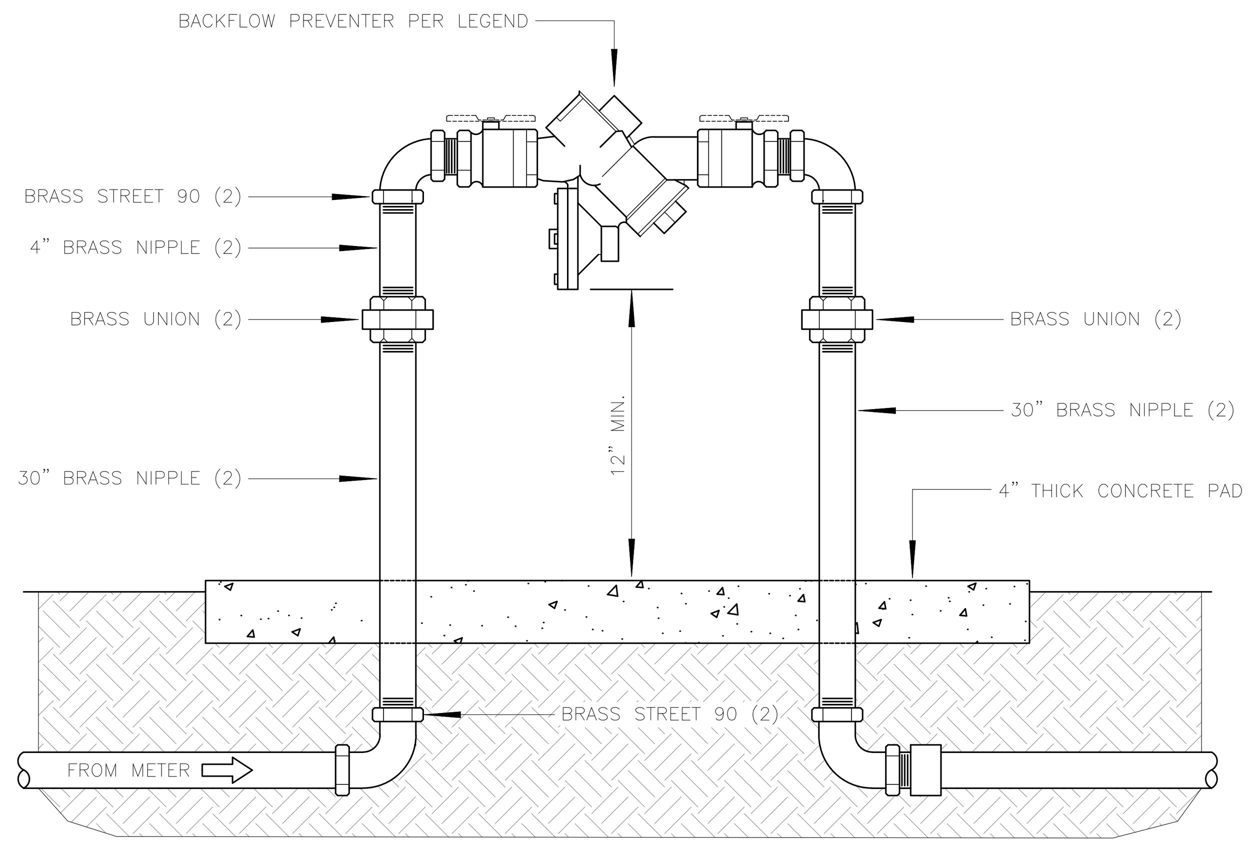
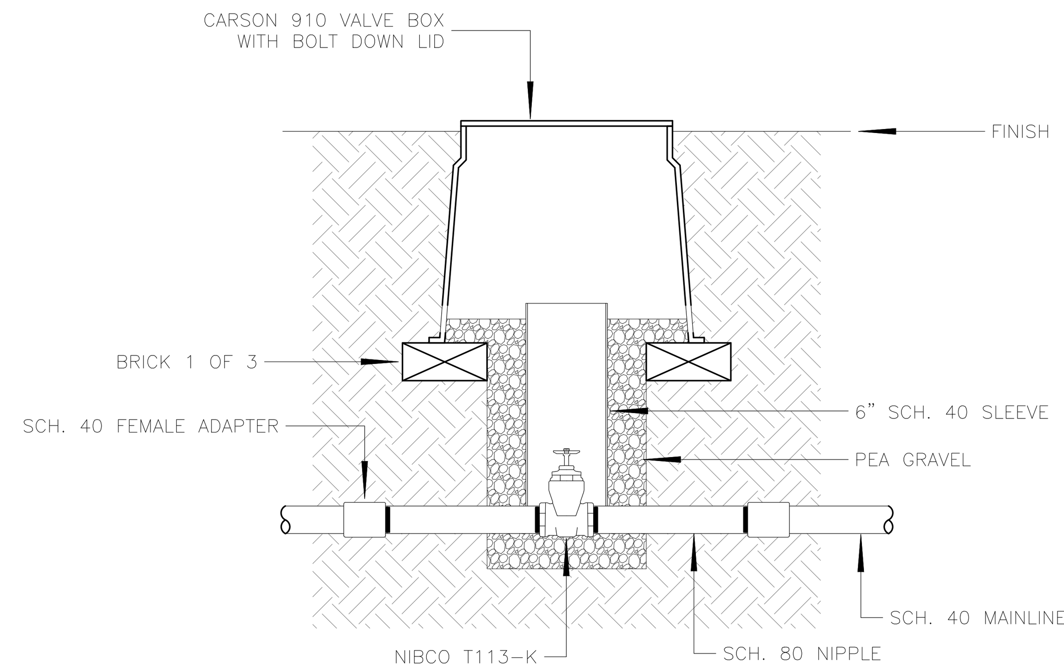
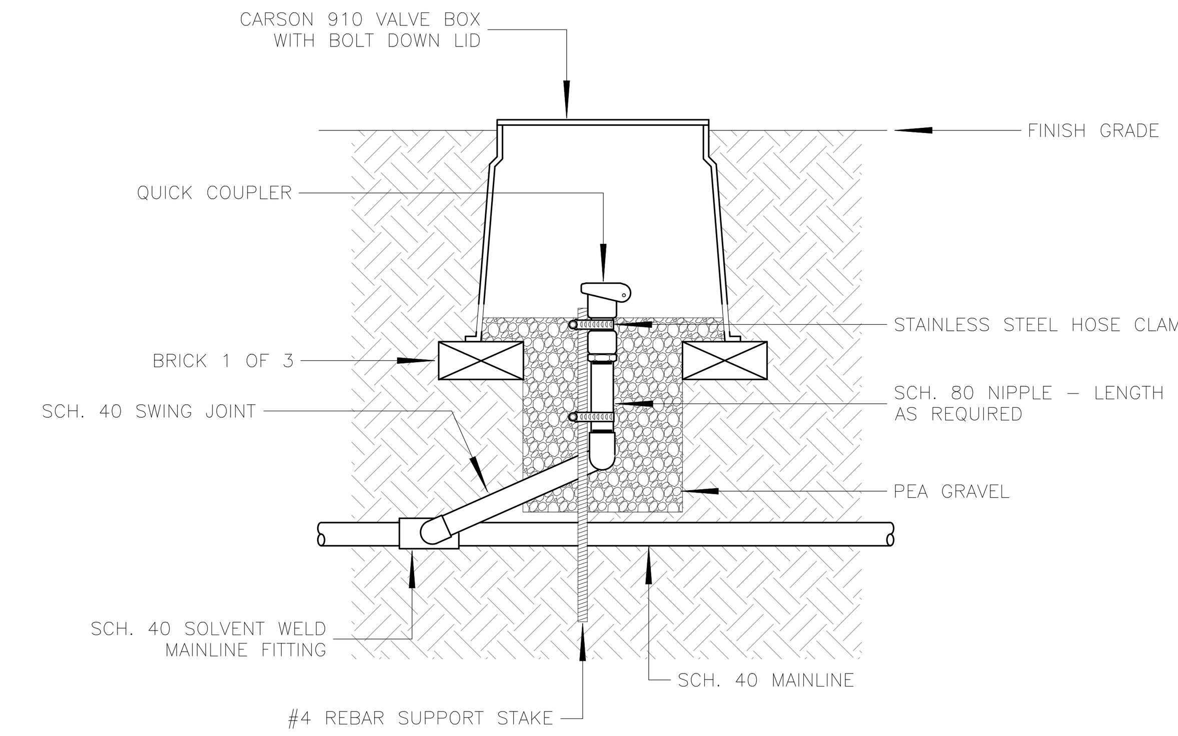


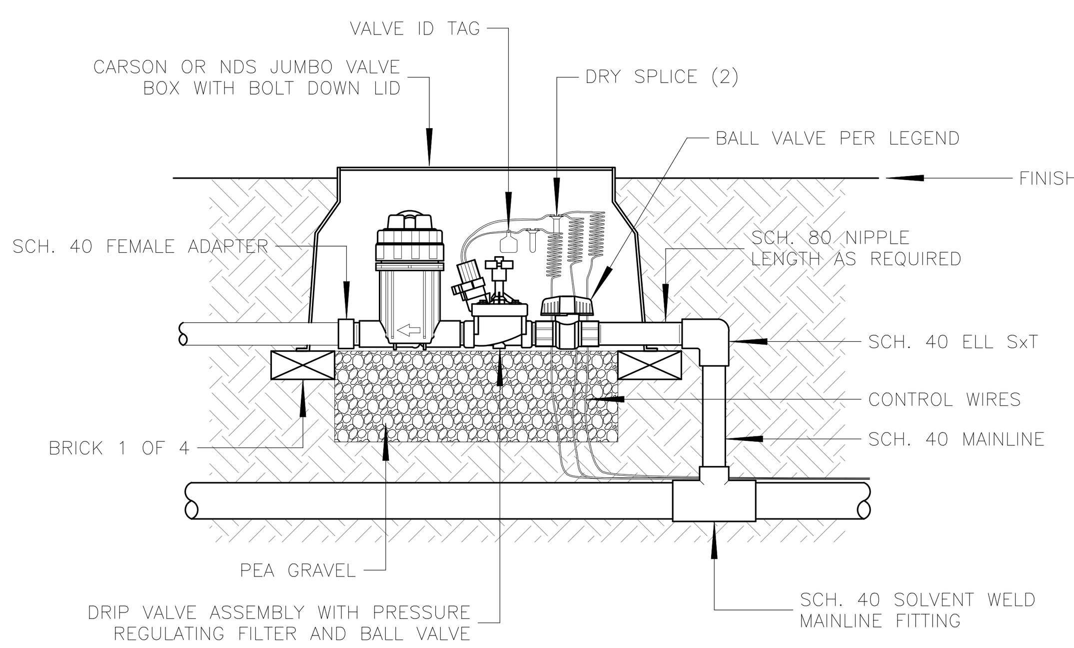
1 BACKFLOW PREVENTER DETAIL
N.T.S.



2 GATE VALVE DETAIL
N.T.S.

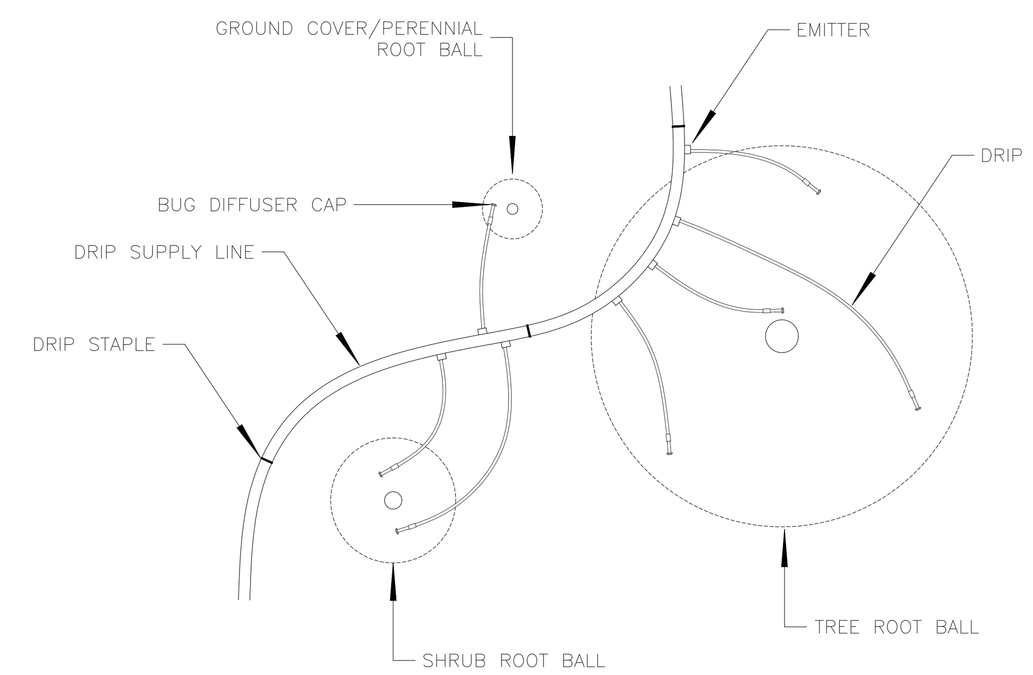


3 QUICK COUPLER DETAIL
N.T.S.



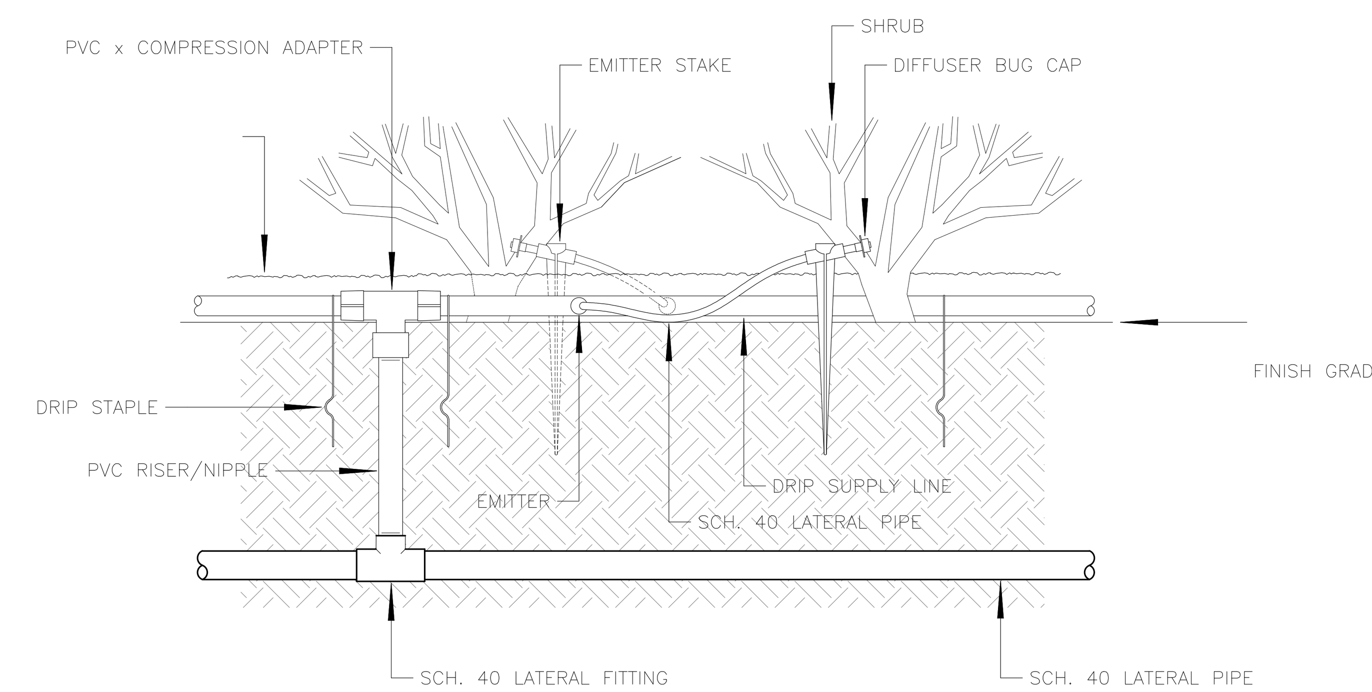
NOTE:
1. TOP OF VALVE BOX TO BE SET 1" BELOW F.G. IN TURF AREAS AND 2" BELOW IN PLANTERS.
2. MAINLINE TO HAVE MIN. 18" COVER.

4 DRIP VALVE DETAIL
N.T.S.

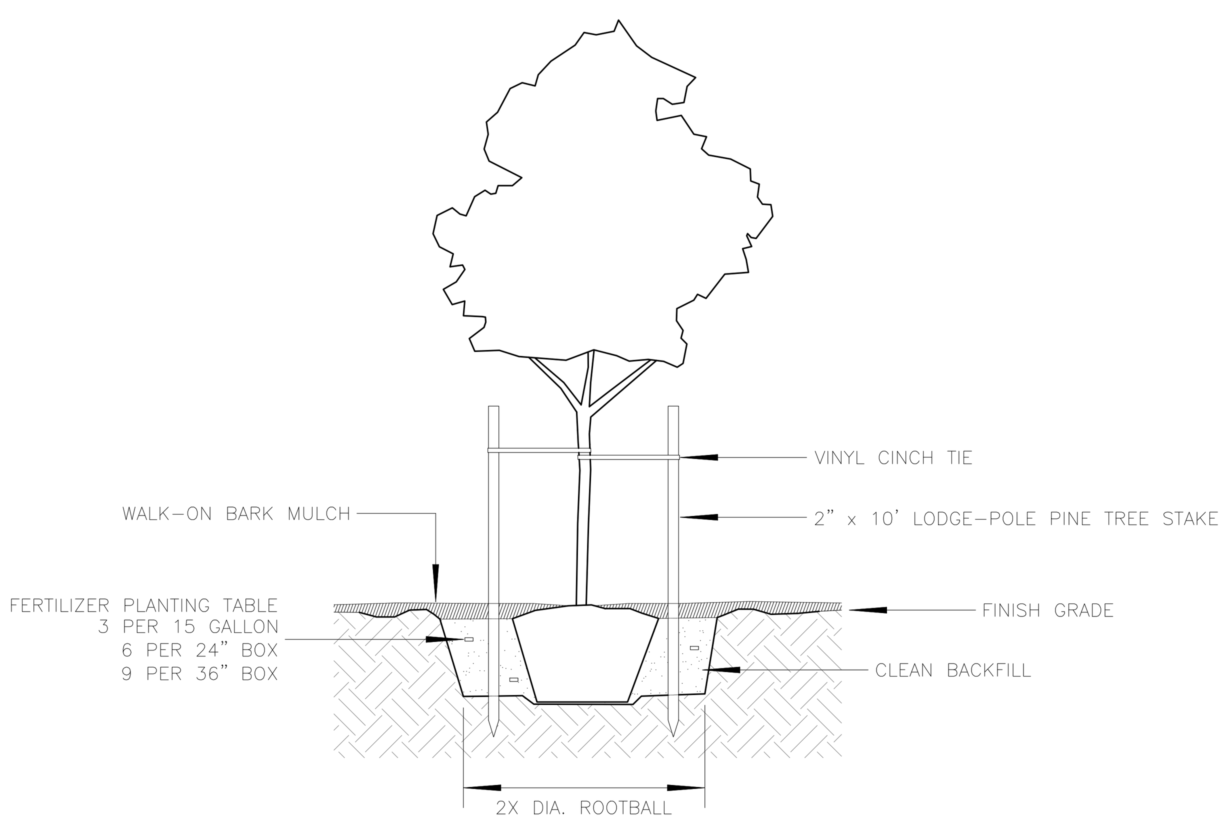


NOTES:
1. INSTALL ONE 1 GPH EMITTER PER ONE GALLON GROUND COVER/PERENNIAL.
2. INSTALL TWO 1 GPH EMITTERS PER FIVE GALLON SHRUB.
3. INSTALL FOUR 1 GPH EMITTERS PER 15 GALLON TREE.

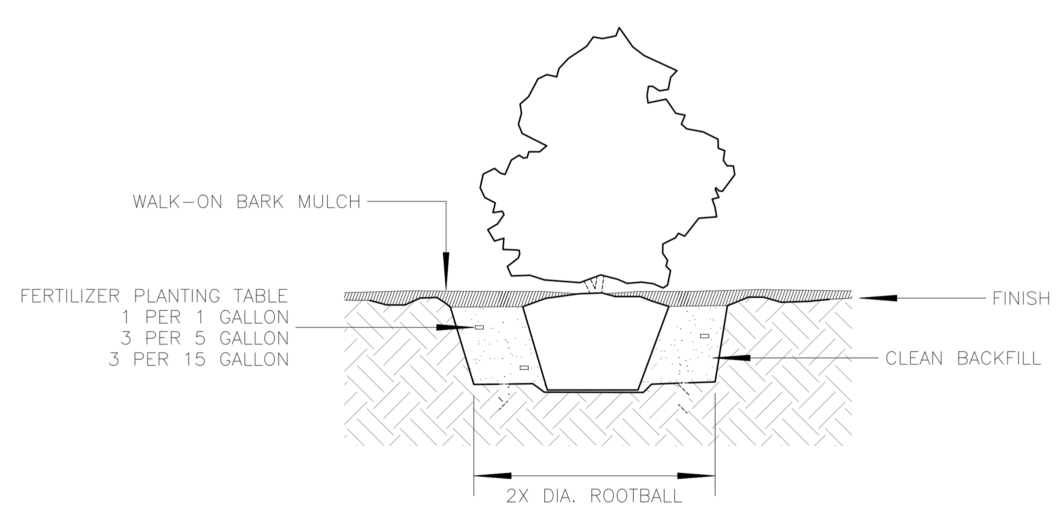
5 DRIP EMITTER LAYOUT DETAIL
N.T.S.



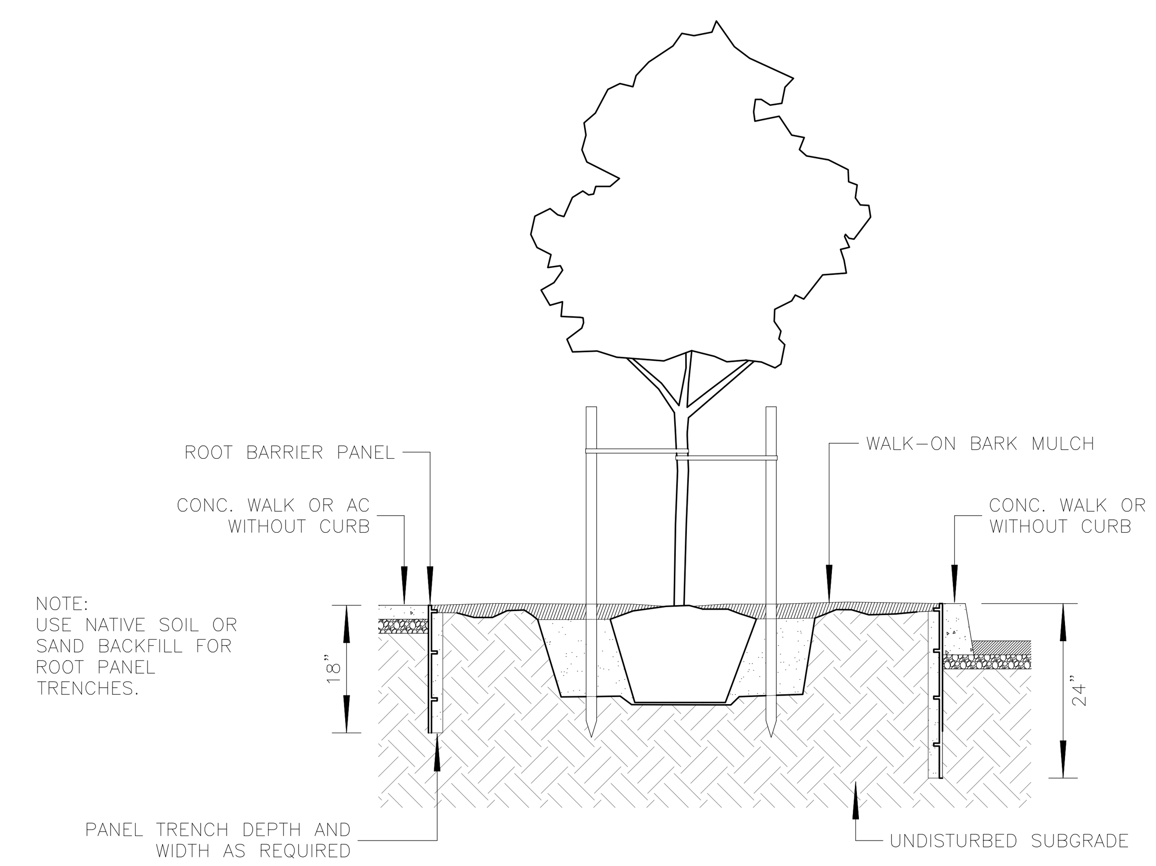
6 DRIP IRRIGATION DETAIL
N.T.S.



7 PLANTING DETAIL
N.T.S.



8 PLANTING DETAIL
N.T.S.



9 TREE PLANTING WITH ROOT BARRIER DETAIL
N.T.S.

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P: (530) 671-1029
F: (530) 671-3328
E: estimating@botanica.net

DETAILS
NOT TO SCALE

PLATINUM EXPRESS
7235 PACIFIC AVENUE
PLEASANT GROVE, CA
95993
APN: 035-220-017

REVISIONS

1	6-21-2022
2	8-1-2022
3	8-10-2022
4	1-31-2023
5	3-20-2023

DRAWN BY:
C. TOMEI

DATE: 3-14-2022

APPROVED:

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L4

4 OF SHEET 4

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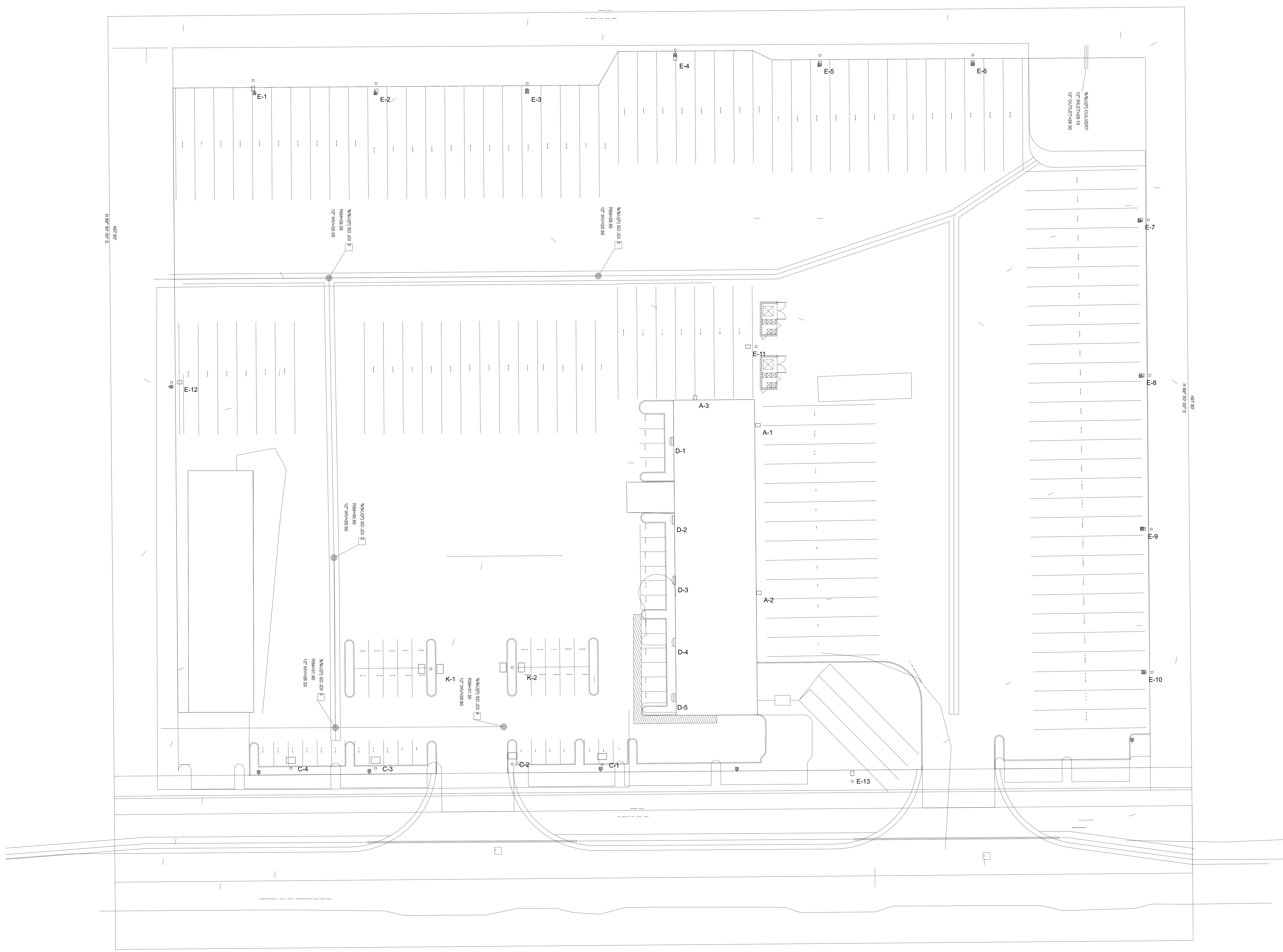
PARKING LOT LIGHT LAYOUT



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6849 SUTTER AVE.
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PLATINUM EXPRESS
NEW TRUCK YARD
7235 PACIFIC AVENUE

Pritchard Electric Company
Electrical Contractors
6849 Sutter Ave
Sutter, CA 95982
TEL: 530-701-1022

DATE: 2/5/23
SCALE: 1" = 30'
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JOB:
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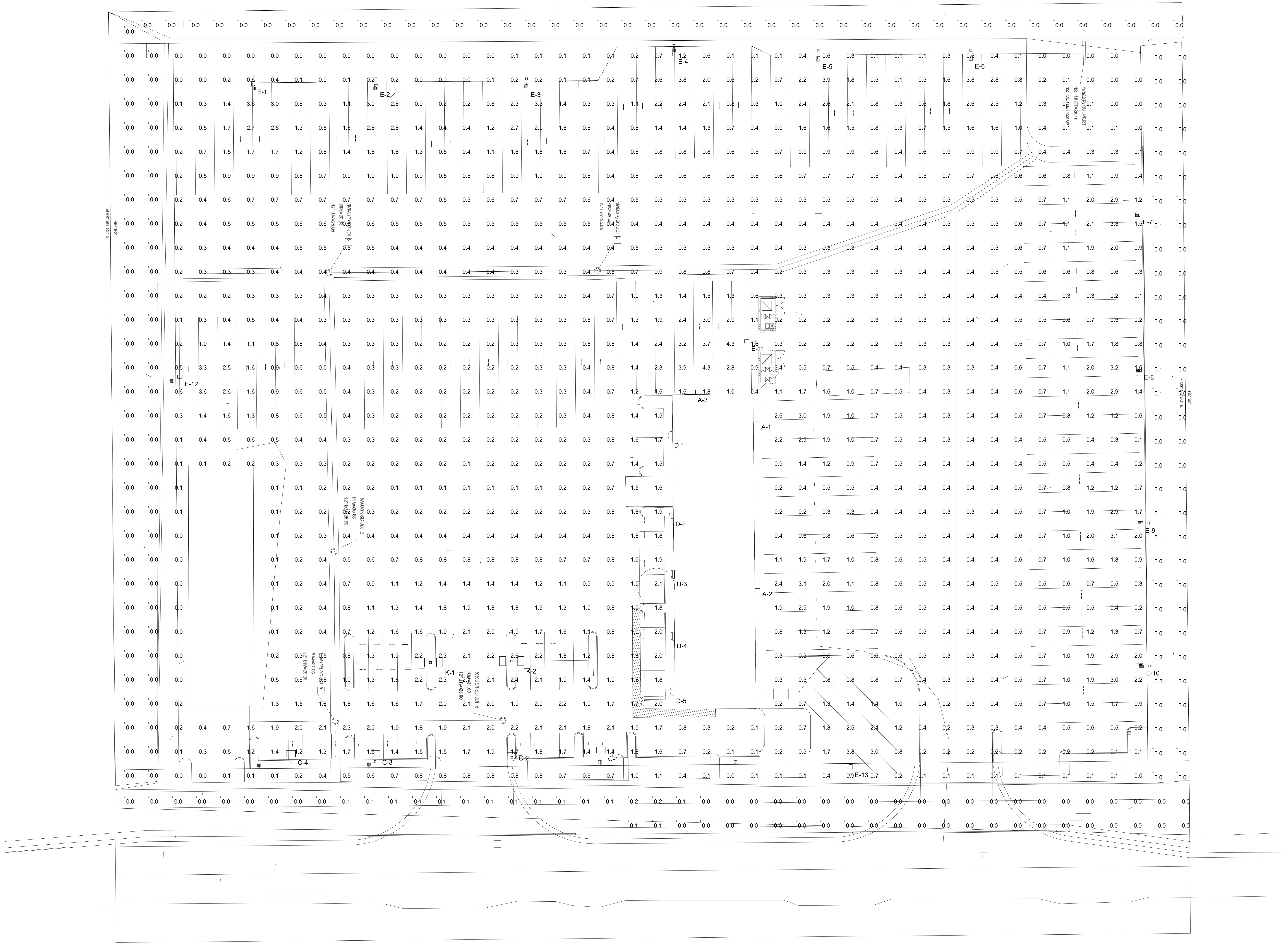
OF SHEETS



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6849 SUTTER AVE.
SUTTER, CA 95982
530.701.1022

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PHOTOMETRIC PLAN

PLATINUM EXPRESS NEW TRUCK YARD 7235 PACIFIC AVENUE

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Electrical Contractors
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Sutter, CA 95982
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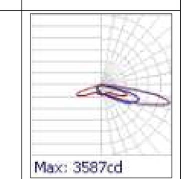
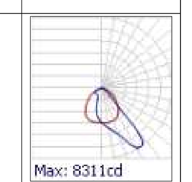
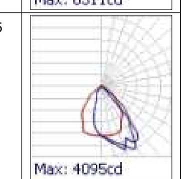
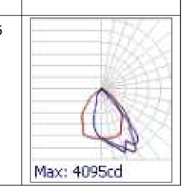
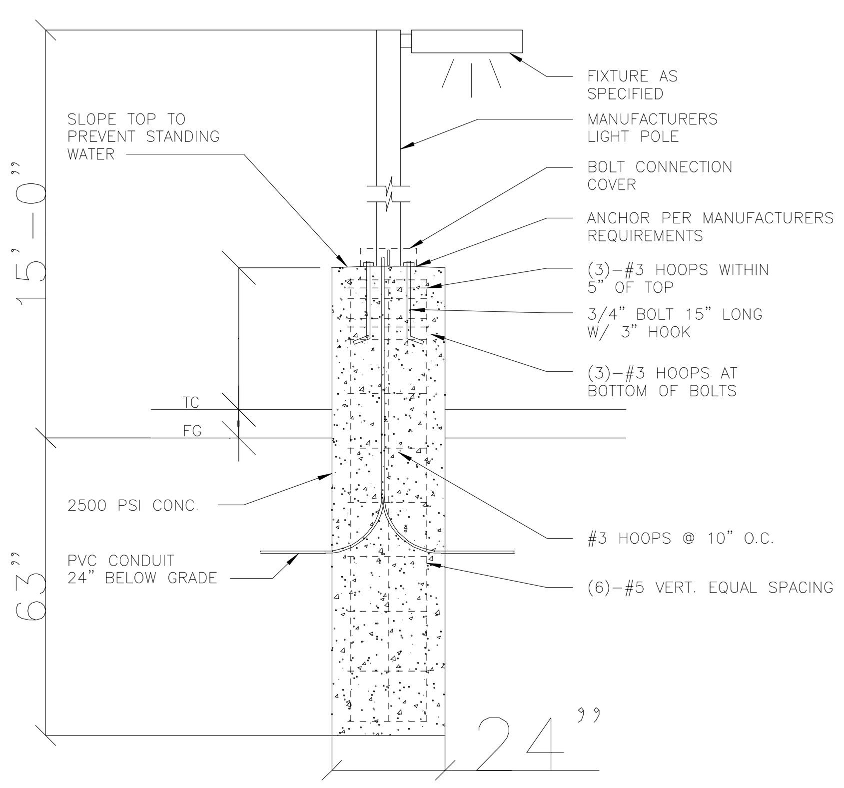
SHEET E2
OF SHEETS

Schedule

Symbol	Label	Image	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power	Polar Plot
	D		5	Lithonia Lighting	DSXW1 LED 10C 700 50K T2M MVOLT	DSXW1 LED WITH (1) 10 LED LIGHT ENGINES, TYPE T2M OPTIC, 5000K, @ 700mA.	1	2700.689	1	26.2	
	K		2	Lithonia Lighting	DSX0 LED P1 50K 80CRI T4M	D-Series Size 0 Area Luminaire P1 Performance Package 5000K CCT 80 CRI Type 4 Medium	1	4484	1	66.42	 Max: 3587cd
	C		4	Lithonia Lighting	DSX0 LED P1 50K 80CRI BLC3	D-Series Size 0 Area Luminaire P1 Performance Package 5000K CCT 80 CRI Type 3 Extreme Backlight Control	1	3213	1	33.21	 Max: 8311cd
	E		13	Lithonia Lighting	RSXF1 LED P1 50K AWFD FV	RSXF Flood Fixture Size 1 P1 Lumen Package 5000K CCT Type AWFD Distribution with FV Shield	1	4682	1	51.3435	 Max: 4095cd
	A		3	Lithonia Lighting	RSXF1 LED P1 50K AWFD FV	RSXF Flood Fixture Size 1 P1 Lumen Package 5000K CCT Type AWFD Distribution with FV Shield	1	4682	1	51.3435	 Max: 4095cd

Luminaire Locations

		Location						Aim		
No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z
2	A	570.78	320.54	20.00	20'	90.00	45.00	590.78	320.54	0.00
3	A	530.86	442.25	20.00	20'	0.00	45.00	530.86	462.25	0.00
1	C	472.99	213.50	20.00	20'	0.00	0.00	472.99	214.50	0.00
2	C	417.07	213.89	20.00	20'	0.00	0.00	417.07	214.89	0.00
3	C	331.78	211.24	20.00	20'	0.00	0.00	331.78	212.24	0.00
4	C	278.98	211.20	20.00	20'	0.00	0.00	278.98	212.20	0.00
1	D	516.62	415.07	20.00	20'	270.00	0.00	516.62	415.07	0.00
2	D	517.42	365.94	20.00	20'	270.00	0.00	517.42	365.94	0.00
3	D	518.21	328.40	20.00	20'	270.00	0.00	518.21	328.40	0.00
4	D	518.21	289.65	20.00	20'	270.00	0.00	518.21	289.65	0.00
5	D	517.82	255.30	20.00	20'	270.00	0.00	517.82	255.30	0.00
1	E	255.44	639.85	20.00	20'	180.00	45.00	255.44	624.71	5.86
2	E	332.20	638.11	20.00	20'	180.00	45.00	332.20	622.97	5.86
3	E	426.32	638.11	20.00	20'	180.00	45.00	426.32	622.97	5.86
4	E	518.60	658.86	20.00	20'	180.00	45.00	518.60	643.72	5.86
5	E	608.77	655.64	20.00	20'	180.00	45.00	608.77	640.50	5.86
6	E	704.08	655.83	20.00	20'	180.00	45.00	704.08	640.69	5.86
7	E	813.53	553.04	20.00	20'	270.00	45.00	798.39	553.04	5.86
8	E	814.36	456.09	20.00	20'	270.00	45.00	799.22	456.09	5.86
9	E	815.29	360.28	20.00	20'	270.00	45.00	800.15	360.28	5.86
10	E	815.78	271.05	20.00	20'	270.00	45.00	800.64	271.05	5.86
11	E	569.00	474.00	20.00	20'	270.00	45.00	548.00	474.00	0.00
12	E	204.57	451.81	20.00	20'	90.00	45.00	219.71	451.81	5.86
13	E	629.00	203.00	20.00	20'	0.00	45.00	629.00	218.14	5.86
1	K	366.26	273.16	20.00	20'	90.00	0.00			
2	K	417.00	274.07	20.00	20'	90.00	0.00			
1	A	570.17	425.03	20.00	20'	90.00	45.00	590.17	425.03	0.00



PRITCHARD ELECTRIC CO.
6849 SUTTER AVE.
SUTTER, CA 95982
530.701.1022

JEFFPRITCHARD1022
@GMAIL.COM

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PRITCHARD ELECTRIC
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LEGEND AND DETAILS

PLATINUM EXPRESS
NEW TRUCK YARD
7235 PACIFIC AVENUE

Pritchard Electric Company
Electrical Contractors
6849 Sutter Ave
Sutter, CA 95982
TEL: 530-701-1022

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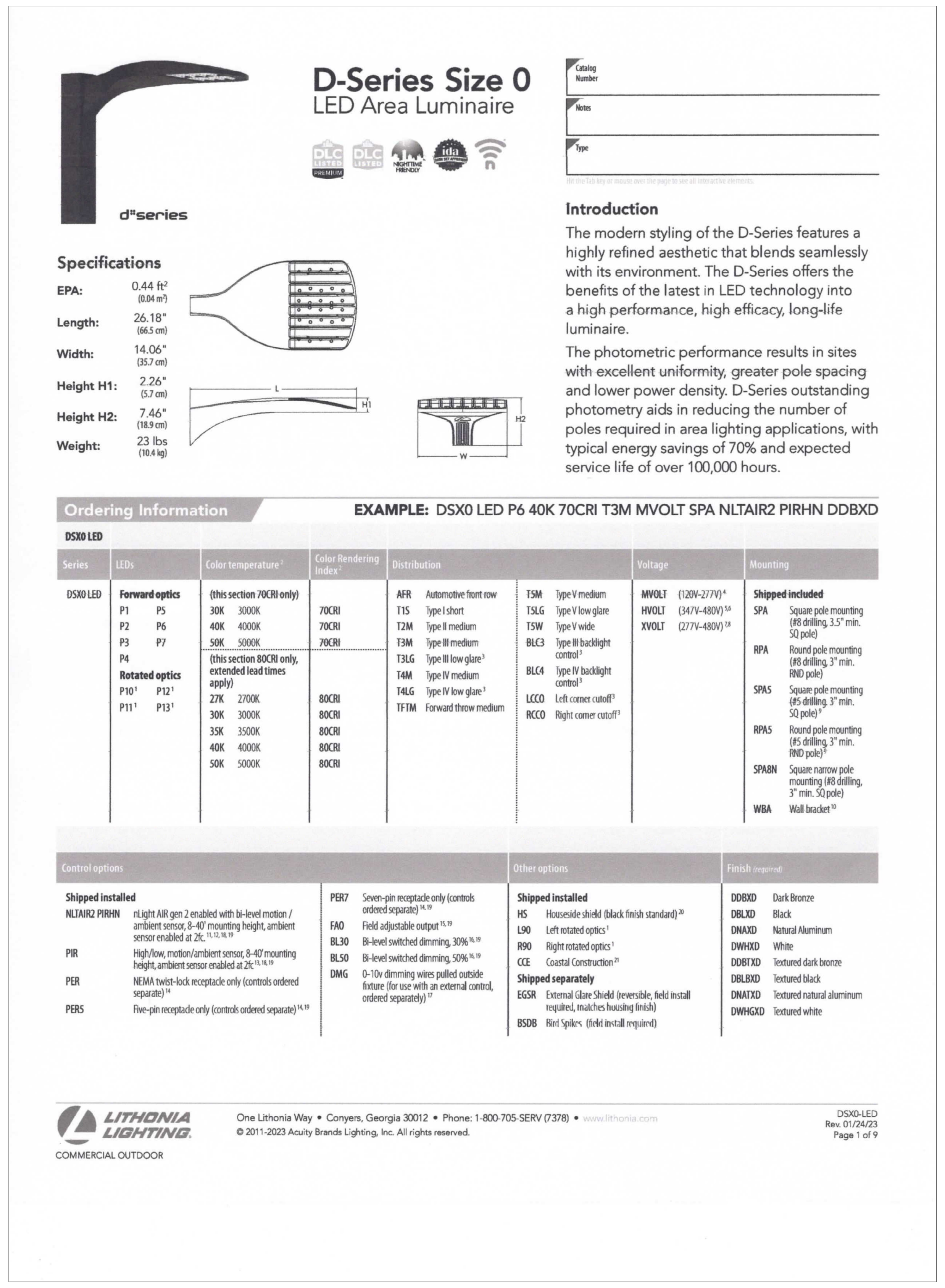
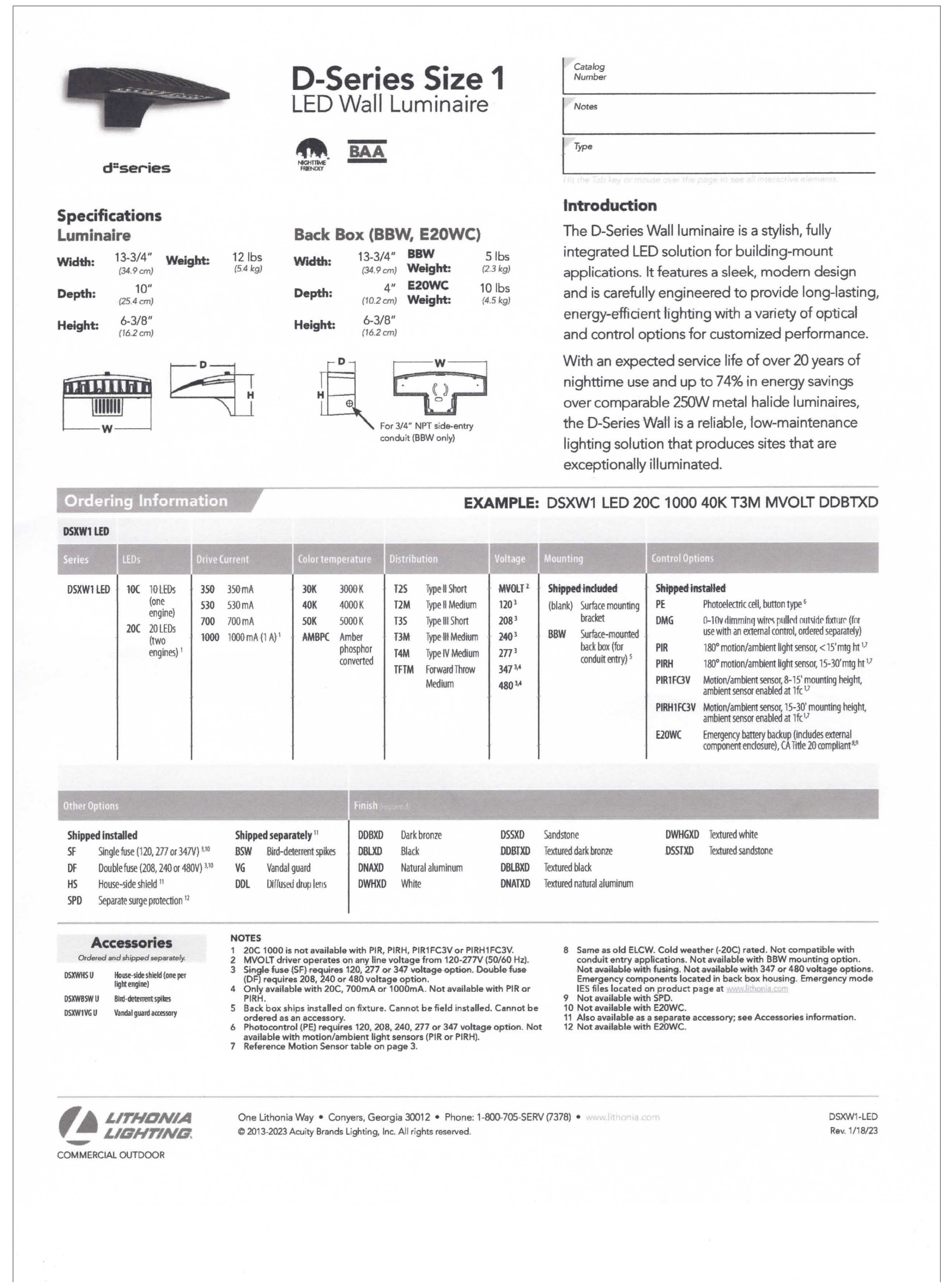

D-Series Size 0
LED Area Luminaire

Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications, with typical energy savings of 70% and expected service life of over 100,000 hours.

Ordering Information — EXAMPLE: DSX0 LED P6 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

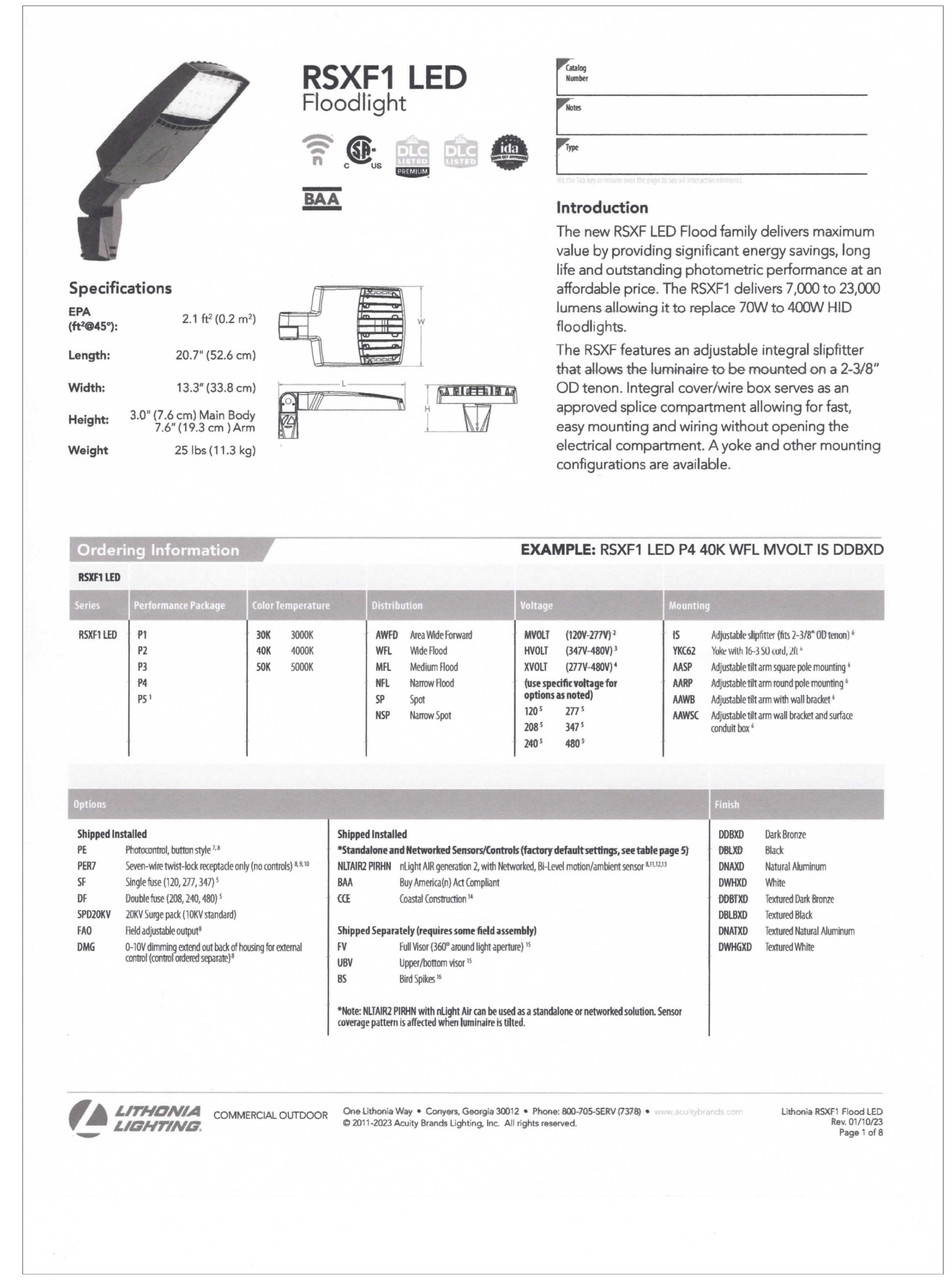

D-Series Size 1
LED Wall Luminaire

Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information — EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD


RSXF1 LED
Floodlight

Introduction

The new RSXF LED Flood family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSXF1 delivers 7,000 to 23,000 lumens allowing it to replace 70W to 400W HID floodlights.

The RSXF features an adjustable integral slipfitter that allows the luminaire to be mounted on a 2-3/8" OD tenon. Integral cover/wire box serves as an approved splice compartment allowing for fast, easy mounting and wiring without opening the electrical compartment. A yoke and other mounting configurations are available.

Ordering Information — EXAMPLE: RSXF1 LED P4 40K WFL MVOLT IS DDBXD

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6849 SUTTER AVE.
SUTTER, CA 95982
530.701.1022

JEFFPRITCHARD1022
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REVISIONS	BY

LIGHT DESCRIPTION

PLATINUM EXPRESS
NEW TRUCK YARD
7235 PACIFIC AVENUE

Pritchard Electric Company
Electrical Contractors
6849 Sutter Ave
Sutter, CA 95982
TEL: 530-701-1022

DATE: 2/5/23
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APPENDIX B
ESA TECHNICAL REPORT

Draft

PLATINUM TRUCKING TRUCK YARD STUDY

Technical Report

Prepared for
Amit Dhugga
Platinum Express Inc.

April 2022

ESA

Draft

PLATINUM TRUCKING TRUCK YARD STUDY

Technical Report

Prepared for
Amit Dhugga
Platinum Express Inc.

April 2022

550 Kearny Street
Suite 800
San Francisco, CA 94108
415.896.5900
esassoc.com

ESA

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Platinum Trucking Truck Yard Study Technical Report

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EXECUTIVE SUMMARY

Environmental Science Associates (ESA) conducted an analysis of potential impacts to air quality, greenhouse gases, noise, and traffic from the Platinum Express Trucking project (Project). This analysis was prepared for submittal to the Sutter County Development Services Department for the land use application process. The traffic study was conducted by Fehr & Peers and is included as a stand-alone technical memorandum in **Attachment A** of this technical report.

The proposed Project would include construction and operation of an 8.33-acre truck yard located at 7235 Pacific Avenue in Pleasant Grove, California. During construction, a 4,500 square-foot structure would be demolished. However, there are two existing buildings onsite (10,000 square-feet and 6,000 square feet) that would remain onsite, and no additional buildings are proposed for construction. Currently, 2.3 acres of the Project site are paved. These areas would be repaved, while the remaining 6.1 acres will be newly paved to provide for 120 truck parking spaces and circulation areas as well as 109 passenger automobile parking spaces. During operation, the site would be primarily used for truck parking, but would also include light truck repair services to accommodate customers and employees. It is anticipated that most trucks would access the facility through State Route 99 via Pacific Avenue and Riego Road.

Surrounding uses are mostly agricultural and industrial; however, there is one residence located at 7400 Pacific Avenue, approximately 950 feet south of the project site. In addition, the truck yard is located within the boundaries of the planned Sutter Pointe Specific Plan (SPSP) project which aims to create a mixed-use community that would include residential uses, commercial uses, and an employment center. The closest residential uses would be approximately 625 feet west of the Project site.

To evaluate the significance of Project impacts with respect to the California Environmental Quality Act (CEQA), significance thresholds from the Feather River Air Quality Management District (FRAQMD), the Sutter County Climate Action Plan, the Sutter County General Plan, and guidance from the Federal Interagency Committee on Noise (FICON), were used to evaluate the Project's impacts.

Impacts to air quality were found to be less than significant for pollutant emissions and health risks, as were impacts related to greenhouse gas emissions and noise; while impacts to transportation and traffic were found to be significant. Details of the analyses are described in Chapter 2, *Air Quality*; Chapter 3, *Greenhouse Gas*; Chapter 4, *Noise*; and **Attachment A**, *Traffic*.

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CHAPTER 1
Introduction

1.1 Background

Sutter County is located north of Sacramento County and Sacramento International Airport, and is uniquely positioned to take advantage of its proximity to major transportation corridors and facilities. Major highways through the area include State Route 99 (SR 99) and SR 20 which connect the County to the Interstate 5 (I-5) corridor, to foothill communities in the east and the west, and to I-80 past Grass Valley. Due to its specific geography and availability of undeveloped land, Sutter County has become a center for the development of trucking facilities, primarily along the SR 99 corridor. **Figure 1.1,** below, shows the general vicinity of the truck yard site in relation to SR 99; while **Figure 1.2** shows the location of the proposed project.

1.2 Purpose of the Environmental Analyses

This technical report was prepared to assess the potential environmental impacts relative to CEQA that would result from the approval of the pending truck yard application. Technical analyses were prepared to evaluate potential air quality and health risk, greenhouse gas emissions, noise, and traffic impacts resulting from truck yard operations, to determine whether the approval of the pending truck yard would result in significant environmental impacts.

SOURCE: CENSUS TIGER, 2020; MAXAR, 2021; ESA, 2022

Platinum Trucking Express

Figure 1.1
Regional Project Location

ESA

SOURCE: CENSUS TIGER, 2020; MAXAR, 2021; ESA, 2022

Platinum Trucking Express

Figure 1.2
Project Site Location

ESA

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CHAPTER 2
Air Quality and HRA Technical Report

2.1 Introduction

This section describes existing air quality in the Project area and surrounding region, and presents an analysis of potential impacts of Project construction and operations activities on air quality. A detailed discussion of the climate, topography, and regulatory setting governing air quality in the project area is included in Chapter 2.1.2, *Regulatory Setting,* of the Sutter County Truck Yard Study.[1]

2.2 Air Quality Setting

2.2.1 Air Pollutants of Concern

Local Sources of Pollutants

The air pollutants of concern for the Project are ozone, particulate matter (PM) less than 10 micrometers in diameter (PM_{10}), and PM less than 2.5 micrometers in diameter ($PM_{2.5}$). Reactive organic gases (ROG) and oxides of nitrogen (NO_x) are precursors to ozone, which is formed downwind of the emissions source in a photochemical reaction. Other pollutants of concern include toxic air contaminants (TACs), which are airborne substances that can cause short-term (acute) or long-term (chronic or carcinogenic, i.e., cancer-causing) adverse human health effects, either injury or illness. The predominant TAC that would be generated from the Project is diesel particulate matter (DPM), which is a carcinogen. Emissions of DPM also contribute to a chronic health effect, but the main health concern associated with DPM is cancer risk.

The main sources of criteria pollutants and DPM in the vicinity of the Project site are local truck yard operations, agricultural operations, and existing vehicle traffic (trucks and passenger cars) traveling on Route 99, because they involve use of diesel trucks and agricultural equipment. These are also predominant sources of NO_x. Agricultural operations are also a source of fugitive PM_{10} and $PM_{2.5}$.

---

1 Sutter County, 2021. *Sutter County Truck Yards Study.* May 2021. Available at https://files.ceqanet.opr.ca.gov/274360-1/attachment/4qcbkQ97uz_EsqoAJPcjRSlRfn44sPu6NyXFTlp1m3VH1INNnvVbtqT4inErErJ5RXfvclcA9DGrYVrq0. Accessed March 2022.

2.2.2 Existing Air Quality Conditions

Sensitive Receptors

Air pollutants do not affect every individual or group in the population in the same way. Some groups are more sensitive than others to adverse health effects caused by exposure to air pollutants including the elderly, children, and those with higher rates of respiratory disease such as asthma and chronic obstructive pulmonary disease. Land uses such as schools, day care centers, hospitals, and nursing and convalescent homes are more sensitive than the general public to poor air quality because the population groups associated with these uses are more susceptible to respiratory distress. In addition, residential areas are more sensitive to air quality conditions than commercial and industrial areas because sensitive individuals are present there, and people generally spend longer periods of time at home than elsewhere, leading to greater exposure to ambient air quality conditions.

There is currently one residence located approximately 950 feet south of the Project site along Pacific Avenue, as shown in **Figure 2.1**. In addition, the Project is approximately 625 feet east of future residential land uses that may be developed under the future Sutter Pointe Specific Plan (SPSP) Project. The SPSP project would create a mixed-use community that will include residential development on land that is zoned medium density residential. There are no existing daycares, schools, or convalescent homes within the vicinity of the Project.

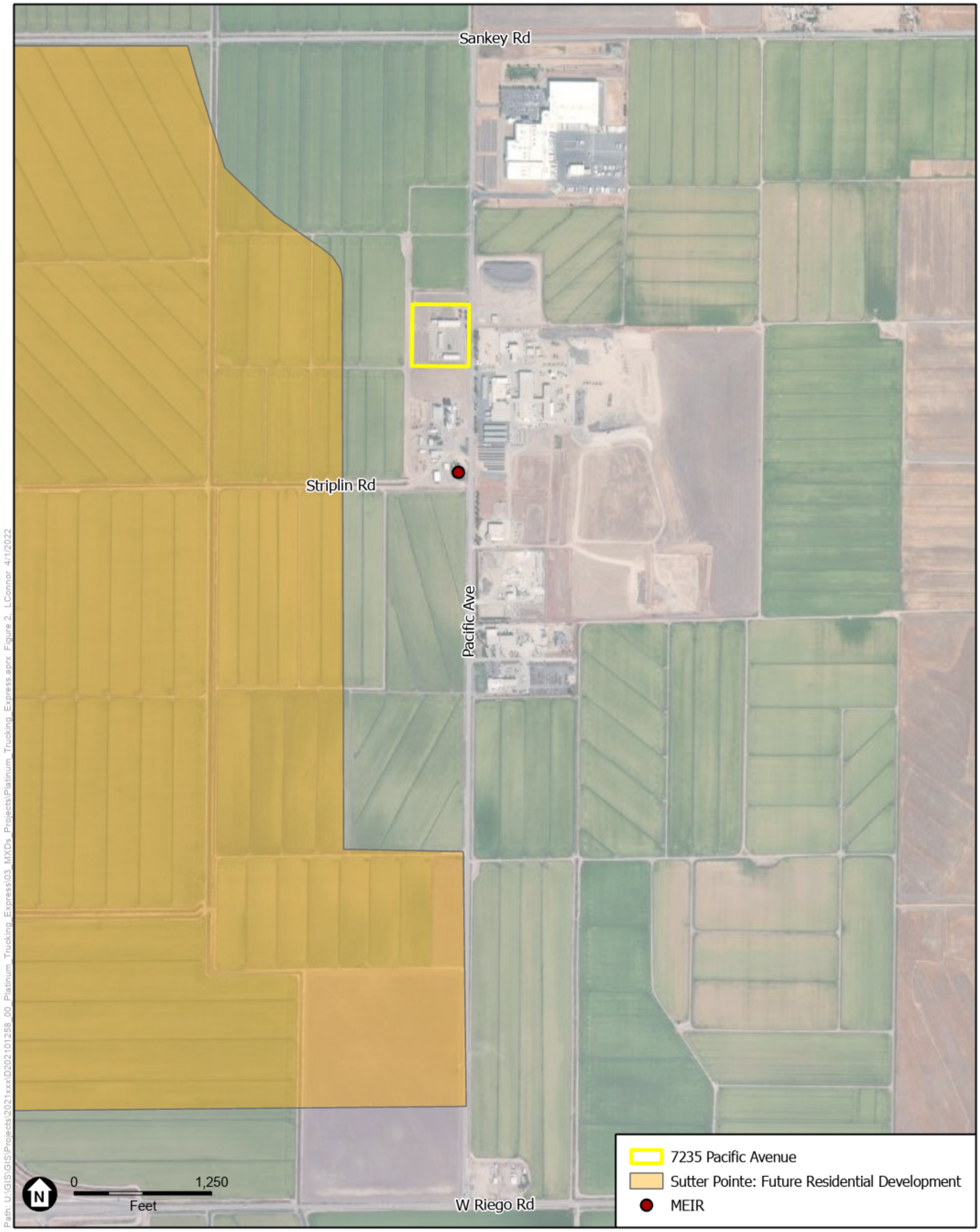
2.3 Feather River Air Quality Management District Guidelines

The Project is located within Sutter County, which falls under the jurisdiction of the Feather River Air Quality Management District (FRAQMD). The FRAQMD is the regional agency tasked with regulating the air quality of Sutter and Yuba Counties through federal, state, and local air quality management programs. Specifically, FRAQMD conducts monitoring, evaluation, and education programs; implements control measures to reduce emissions from stationary sources; issues permits to and inspects pollution sources; enforces air quality regulations; and supports and implements measures to reduce emissions from motor vehicles.

2.4 Analysis, Impacts, and Mitigation

2.4.1 Analysis Criteria

The FRAQMD has developed significance thresholds to help lead agencies determine whether a project may have a significant air quality impact. Projects with emissions that would exceed the significance thresholds would have a potentially significant adverse impact on air quality. **Table 2.1** presents the applicable FRAQMD thresholds of significance for criteria pollutant emissions. For health risk impacts, the FRAQMD has not developed thresholds of significance; therefore, risk thresholds developed by nearby air districts were used for this analysis. **Table 2.2** lists thresholds of significance for health risk from two other northern California air districts for reference: the Sacramento Metropolitan Air Quality Management District (SMAQMD) and the Bay Area Air Quality Management District (BAAQMD).



SOURCE: CENSUS TIGER, 2020; MAXAR, 2021; ESA, 2022

Platinum Trucking Express

Figure 2.1
Sensitive Receptor Locations

ESA

TABLE 2.1
FRAQMD MASS EMISSIONS THRESHOLDS OF SIGNIFICANCE

	NO_x	ROG	PM_{10}
Construction	25ppd, not to exceed 4.5tpy	25ppd, not to exceed 4.5tpy	80ppd
Operation	25ppd	25ppd	80ppd

NOTES:
NO_x and ROG construction emissions may be averaged over the life of the Project, but may not exceed 4.5 tpy. The FRAQMD has not yet established a threshold of significance for $PM_{2.5}$.

tpy=tons per year; ppd=pounds per day

SOURCE: Feather River Air Quality Management District (FRAQMD), 2010. *Indirect Source Review Guidelines; Chapter 3: Thresholds of Significance*. Available at https://www.fraqmd.org/files/658e76309/Chapter+3.pdf. Accessed February 2022.

TABLE 2.2
BAAQMD/SMAQMD HEALTH RISK THRESHOLDS OF SIGNIFICANCE

Jurisdiction Applicable Thresholds of Significance	Cancer Risk
BAAQMD Individual Project	10
SMAQMD Individual Project	10

SOURCES:

Sacramento Metropolitan Air Quality Management District (SMAQMD), 2020. *SMAQMD Thresholds of Significance Table, CEQA Guide.* December 2009, Revised November 2014, May 2015, April 2020. Available at http://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable4-2020.pdf. Accessed February 2022.
Bay Area Air Quality Management District (BAAQMD), 2017. *California Environmental Quality Act Air Quality Guidelines.* May 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed February 2022.

2.4.2 Methodology and Assumptions

Project-related air quality impacts fall into two categories: short-term impacts due to construction and long-term impacts from operations. First, during construction (short-term), the Project would generate ROG, NO_x, and PM_{10}, as well as DPM, from use of diesel-powered heavy-duty construction equipment, worker automobiles, vendor trucks, and haul trucks. During operations, the Project would also generate these pollutants from mobile sources associated with customers, employees, and trucks traveling to the project site, as well as one stationary-source, a diesel-powered backup generator. A minor amount of emissions would also be generated from area sources and energy-use.

Mass Emissions Estimates

Construction

Construction-related emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0 and the EMFAC2021 on-road emission model, both approved by the California Air Resources Board. United States Environmental Protection Agency (U.S. EPA) AP-42 emission factors were also used to calculate entrained road dust from automobiles, vendor trucks, and haul trucks traveling to the Project site. CalEEMod inputs included size of the Project site, anticipated construction equipment, and the expected project schedule. Where project-specific information was not available, CalEEMod defaults were used. CalEEMod-, EMFAC2021-, and AP-42-calculated emissions were summed and then compared to FRAQMD's applicable regional significance thresholds. Detailed CalEEMod, EMFAC2021, and AP-42 assumptions and outputs are included in **Attachment B.**

Operation

Operational emissions were also estimated using CalEEMod, EMFAC2021 emission factors, OFFROAD2021 emission factors, and U.S. EPA AP-42 emission factors and were then compared to FRAQMD's thresholds of significance for operational emissions, specified in Table 2.1. Modeling inputs included:

- Number of passenger automobile and truck trips to the Project site;
- Average automobile trip length;
- Average truck trip length;
- Average number of TRUs that could be operating on-site; and
- backup diesel generator specifications.

Traffic information was obtained from the traffic report prepared by Fehr & Peers (**Attachment A**). The traffic report included average trip distances for passenger vehicles. Truck trip distance for trucks traveling to the Project site is assumed to be 4.7 miles round-trip. It was assumed that without the Project, trucks would already be traveling along SR 99. With the Project, trucks would exit SR 99 at Riego Road, travel along Riego road, and then on Pacific Avenue to the Project site. It was conservatively assumed that 50% of the trucks parked onsite would be equipped with TRUs. As was done for construction on-road vehicle exhaust emissions estimates, operational on-road vehicle exhaust emissions were calculated using EMFAC2021 emission factors, and U.S. EPA AP-42 emission factors were used to calculate entrained road dust. In addition to off-site on-road emissions, om-site exhaust emissions were calculated using EMFAC2021 emission factors and fugitive dust emissions were calculated using U.S. EPA AP-42 emission factors to determine emissions associated with vehicles traveling within the Project site at low speeds.[2] TRU exhaust emissions were calculated using OFFROAD2021 emission factors.

Health Risk Assessment

During construction, the Project would emit DPM primarily from the use of off-road diesel construction equipment, vendor truck trips, and haul truck trips. As discussed further below, according to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments (HRAs) should be based on a 30-year exposure period when assessing impacts of TAC emissions (such as DPM) that have only cancer or chronic non-cancer health effects. However, for short term activities such as construction, such HRAs should be limited to the duration of the emission-producing activities associated with the project, unless the activities

2 EPA, 1995, updated 2006. *AP-42: Compilation of Air Emissions Factors, Chapter 13*. Available at https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors. Accessed February 2022.

occur for less than 6 months. Activities that would last more than 2 months, but less than 6 months, are recommended to be evaluated as if they would last for 6 months. OEHHA dos not recommend conducting HRAs for projects with construction that would last less than 2 months.[3] The Project construction period is anticipated to last from early June 2022 through mid-July 2022, and would be less than the two-month screening exposure duration recommended in the OEHHA Air Toxic Hot Spots Program, Risk Assessment Guidance for Manual Preparation of Health Risk Assessments.

The primary TAC emitted during operation of the Project would be DPM from heavy-duty truck trips, operation of TRU's, and operation of a backup diesel generator. The health risk resulting from exposure to DPM emissions operations was evaluated using air emission and dispersion modeling software. A screening-level HRA was conducted that evaluated the risks to the nearby residence (sensitive receptor) south of the Project site along Pacific Avenue, as well as potential future residential land uses west of the Project site that may be developed as part of the SPSP Project. The results of this analysis represent the worst-case scenario due to the conservative assumptions used in the modeling. If predicted risks are found to be less than significance thresholds at the existing residential receptor and at the potential SPSP Project residential uses, risks at other sensitive receptors located farther from the Project site would be even lower and therefore, also less than significant.

As discussed above, DPM emissions would be generated by the operation of on-road heavy-duty diesel-fueled vehicles, TRUs, and a backup diesel generator. The inhalation pathway is the dominant exposure pathway from DPM for cancer risk. Consequently, the HRA prepared for the Project only evaluates cancer effects of DPM inhalation.

A three-step process was used to estimate cancer risks from DPM exposure. The first step involved using the CalEEMod software program and EMFAC2021 emission factors to estimate average annual DPM emissions. The second step involved using the EPA-approved AERSCREEN dispersion model (version 16216). AERSCREEN is the screening version of AERMOD (version 19191) and uses worst-case meteorology to predict conservative concentrations at distance increments in any direction from the source, as opposed to a specific location defined by a Cartesian coordinate system.

AERSCREEN was used to estimate Project DPM concentrations, in micrograms per cubic meter ($\mu g/m^3$), from the operational sources discussed above. Model inputs included source sizes, locations, operating activity, and sensitive receptor locations.

For this project, two sources were used to represent the operational activities:

- A conservative representation of the on-site operational emissions within the Project site modeled as a rectangular area source.

3 Office of Environmental Health Hazard Assessment (OEHHA), 2015. *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*. February 2015. Available at https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed March 2022.

- A conservative representation of off-site passenger automobile and truck emissions, modeled as a series of areas sources along Pacific Avenue.

The above sources were modeled with an emission rate of one gram per second to determine the dispersion factor (unit concentration) occurring at the nearest residence, which is approximately 950 feet south of the Project site, along Pacific Avenue. The DPM concentration was calculated using this dispersion factor and annual DPM average emissions calculated using the CalEEMod, EMFAC2021, and OFFROAD2021 emissions outputs.

The third step in evaluation of health risk used the calculated DPM concentration, together with health risk factors and equations developed by the OEHHA, to calculate the potential cancer risk from the Project's operational activities over a 30-year period.[4] Modeling assumptions and output, OEHHA equations, and the health impact calculations are detailed in **Attachment B**.

2.4.3 Impact Analysis

Criteria Pollutant Emissions

Construction

Criteria pollutant emissions that would be generated from the use of construction equipment, worker trips, vendor trips, and haul-truck trips are summarized in **Table 2.3**, below.

TABLE 2.3
TOTAL PROJECT CONSTRUCTION EMISSIONS ESTIMATES (PPD)

	ROG	NO_X	PM_{10}
Emissions	9.21	14.75	2.52
FRAQMD Threshold	25	25	80
Exceeds Threshold?	No	No	No

NOTES:
ROG and NO_x emissions are averaged over the construction period; PM_{10} emissions represent the maximum daily emissions that could be generated during construction.

SOURCE: Attachment B.

As shown above, construction of the Project would not generate emissions of criteria air pollutants that would exceed the FRAQMD thresholds of significance.

Operations

Project operational emissions, predominantly from on-road trucks, TRUs, passenger vehicles, and a backup diesel generator are presented in Table 2.4 below. As discussed, above, operation of the on-site buildings would generate a minor amount of emissions from area sources and energy-use, which were also calculated in CalEEMod. These emissions are also included in the emissions totals presented in **Table 2.4**.

4 Office of Environmental Health Hazard Assessment, 2015. *Air Toxics Hot Spots Program – Risk Assessment Guidelines*. Available at https://www.mdaqmd.ca.gov/home/showpublisheddocument/6216/636820254852670000. Accessed February 2022.

TABLE 2.4
TOTAL PROJECT OPERATIONAL EMISSIONS ESTIMATES (PPD)

	ROG	NO_X	PM_{10}
Average Daily Emissions	2.69	6.60	7.08
FRAQMD Threshold	25	25	80
Exceeds Threshold	No	No	No

SOURCE: Attachment B.

As shown in Table 2.4, operation of the Project would not generate emissions of ROG, NO_x, or PM_{10} that would exceed the applicable FRAQMD thresholds of significance.

Since the Project has an operational phase, the project is characterized by the FRAQMD as a Type 1 project.[5] According to the FRAQMD indirect source review guidelines, if operational emissions of a Type 1 project do not exceed the thresholds of significance, it is recommended that the project proponent implement the Standard Mitigation Measures. The project would implement Mitigation Measure AQ-1: FRAQMD Standard Mitigation Measures, discussed below. Neither construction, nor operation of the Project would generate emissions that would exceed the FRAQMD thresholds of significance, and the project would implement the FRAQMD recommended Standard Mitigation Measures. Therefore, the project would have a less-than-significant impact and would not result in a significant net increase of criteria air pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

<u>Mitigation Measures</u>

Mitigation Measure AQ-1: Implement FRAQMD Standard Mitigation Measures

The project applicant will implement the following FRAQMD-recommended Standard Mitigation Measures for projects that do not exceed construction or operational thresholds of significance.

- Implement the Fugitive Dust Control Plan.
- Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions limitations (40 percent opacity or Ringlemann 2.0).
- The contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation.
- Limit idling time to 5 minutes – saves fuel and reduces emissions in accordance with 13 CCR Chapter 10 Section 2485 and 13 CCR Chapter 9 Article 4.8 Section 2449.
- Utilize existing power sources or clean fuel generators rather than temporary power generators.

5 Type 1 projects are land use projects in which an operational phase exists.

- Develop traffic plans to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.

- Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require CARB Portable Equipment Registration with the State or a local district permit. The owner/ operator shall be responsible for arranging appropriate consultation with CARB or the District to determine registration and permitting requirement s prior to equipment operation at the site.

Screening-Level Health Risk Assessment

Table 2.5, below, presents the lifetime excess cancer risk at the maximally exposed individual resident (MEIR), generated from operation of the truck yard. The MEIR is the house located approximately 950 feet south of the Project site, along Pacific Avenue. Figure 2.1 shows the location of the MEIR and the potential future residential uses that may be developed as part of the SPSP Project.

As shown in Table 2.5, operation of the Project would contribute cancer risk of up to 9.3 per million for the MEIR, and 7.0 per million at the SPSP Project's potential future residential uses. This risk is less than the project-level risk threshold of ten per million; therefore, cancer risk generated by the Project would be less than significant.

TABLE 2.5
MODELED MAXIMUM EXCESS LIFETIME CANCER RISK

Maximally Exposed Individual Receptor	Cancer Risk (in 1 million)
Pacific Avenue MEIR	9.3
Sutter Pointe Specific Plan Residential Land Uses	7.0
SMAQMD/BAAQMD Threshold	10
Exceeds Threshold?	No

SOURCE: Attachment B.

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CHAPTER 3

Greenhouse Gas Analysis

3.1 Introduction

This section assesses the potential greenhouse gas (GHG) emissions and climate change impacts from construction and operation of the Project and discusses the GHG emissions analysis methodology. A detailed discussion of the GHG regulatory background is included in Chapter 2.1.2, *Regulatory Setting,* of the Sutter County Truck Yard Study.[6]

3.2 Environmental Setting

"Global warming" and "climate change" are common terms used to describe the increase in the average temperature of the Earth's near-surface air and oceans since the mid-20th Century. GHGs in the atmosphere naturally trap heat by impeding the exit of solar radiation that has hit the Earth and is reflected back into space – a phenomenon sometimes referred to as the "greenhouse effect." Some GHGs occur naturally and are necessary for keeping the Earth's surface inhabitable. However, increases in the concentrations of these gases in the atmosphere during the last 100 years have trapped solar radiation and decreased the amount that is reflected back into space, intensifying the natural greenhouse effect and resulting in the increase of global average temperature. Carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6) are the principal GHGs.

CO_2 is the reference gas for climate change, as it is the predominant GHG associated with fossil fuel combustion, and is the GHG emitted in the highest volume. The effect that each of the GHGs have on global warming is the product of the mass of their emissions and their global warming potential (GWP). GWP indicates how much a gas is predicted to contribute to global warming relative to how much warming would be predicted to be caused by the same mass of CO_2. For example, CH_4 and N_2O are substantially more potent GHGs than CO_2, with GWPs of approximately 30 and approximately 275 times that of CO_2, which has a GWP of 1.[7]

In emissions inventories, GHG emissions are typically reported as metric tons of CO_2 equivalents (CO_2e). CO_2e are calculated as the product of the mass emitted of a given GHG and its specific GWP. While CH_4 and N_2O have much higher GWPs than CO_2, CO_2 is emitted in higher

6 Sutter County, 2021. *Sutter County Truck Yard Study.* May 2021. Available at https://files.ceqanet.opr.ca.gov/274360-1/attachment/4qcbkQ97uz_EsqoAJPcjRSlRfn44sPu6NyXFTlp1m3VH1INNnvVbtqT4inErErJ5RXfvclcA9DGrYVrq0. Accessed March 2022.

7 U.S. Environmental Protection Agency (US EPA), 2021. *Understanding Global Warming Potentials*. Available at https://www.epa.gov/ghgemissions/understanding-global-warming-potentials. Accessed February 2022.

quantities and it accounts for the majority of GHG emissions in CO_2e, both from developments and human activity in general.

3.2.1 Greenhouse Gas Emissions Estimates

Sutter County Greenhouse Gas Emissions

The *2010 Sutter County Climate Action Plan* (CAP) includes GHG inventories for the years 1990 and 2008. According to the CAP, the County generated approximately 1.2 MMT CO_2e in the year 2008, with the majority of emissions (65.9 percent) resulting from the agricultural sector. Other sources of GHG emissions within the County include transportation (20.8 percent of total County GHG emissions), energy (13.0 percent), solid waste (2.3 percent), and landscape emissions (less than 0.01 percent). Sutter County GHG emissions from 1990 and 2008 are summarized in **Table 3.1**, below.

TABLE 3.1
SUTTER COUNTY GREENHOUSE GAS EMISSIONS ($MTCO_2E$)

Sector	1990	2008
Energy	146,001	158,627
Solid Waste	8,938	2,750
Landscape Emissions	27	32
Agriculture	956,315	805,005
Transportation	226,910	254,610
Total Emissions	**1,338,192**	**1,221,024**

SOURCE: Sutter County, 2010. *Sutter County Climate Action Plan.* July, 2010. Available at https://www.suttercounty.org/home/showpublisheddocument/2798/637555790953130000. Accessed February 2022.

3.3 Regulatory Framework

At the federal level, air quality is regulated by the national ambient air quality standards (NAAQS), which were established under the federal Clean Air Act (CAA). In California, the legal framework for GHG emissions reduction has come about through an incremental set of Governors' Executive Orders, legislation, and regulations put in place since 2002. The major components of Federal and state regulations aimed at reducing greenhouse gas emissions are discussed in detail in Chapter 2.1.2 of the Sutter County Truck Yard Study.

In addition to federal and State regulations, local jurisdictions have developed plans and guidelines that aim to reduce greenhouse gas emissions generated by the region. These applicable local regulations are discussed further below.

Sutter County General Plan

The Sutter County General Plan (2030) includes goals and policies that are intended to encourage energy conservation, protect air quality, and control GHG emissions. General Plan goals and policies that are directly related to climate change aim to promote the efficient use of sensitive existing lands and reduce greenhouse gas emissions. The General Plan also includes goals and policies that employ the use of effective landscape design and encourage improvements in the transportation system as strategies to indirectly reduce greenhouse gas emissions.[8]

Sutter County Climate Action Plan

To achieve the Sutter County General Plan's goals and provide a more livable, equitable, and economically vibrant community, the County has prepared and implemented the Sutter County Climate Action Plan (CAP). The CAP was adopted in July 2010 as part of the County's efforts to reduce GHG emissions in coordination with its land use decisions. The Sutter County CAP lists specific actions to reduce GHG emissions attributable to Sutter County to levels consistent with the AB 32 targets. In addition, the CAP serves as a qualified GHG emissions reduction plan from which the county's future development can tier, thereby streamlining environmental analyses under CEQA. The CAP aims to minimize impacts of development on air quality, promote energy conservation, and ensure that the County's land use decisions and internal operations are consistent with adopted State legislation.[9]

Feather River Air Quality Management District

The FRAQMD is a regional agency tasked with regulating the air quality of Sutter County. FRAQMD accomplishes this goal through monitoring, evaluation, education, control measures to reduce stationary-source emissions, permitting and inspection of pollution sources, enforcement of air quality regulations, and measures to reduce motor vehicle emissions.

FRAQMD has not established guidance or significance thresholds for the evaluation of GHGs or the establishment of a CAP, opting instead to recommend the use of existing methodologies. FRAQMD specifically cites the California Air Pollution Control Officers Association and California Natural Resources Agency's Climate Change Portal, and the Office of the Attorney General, among others, for assistance in evaluating GHG emissions.

3.4 Analysis, Impacts, and Mitigation

3.4.1 Analysis Criteria

As discussed above, the FRAQMD has not established thresholds of significance for the purposes of evaluating GHG emissions from land use projects. In the absence of FRAQMD thresholds or guidance, the analysis was based on guidance from Sutter County. The Project was evaluated for consistency with the Sutter County CAP, which is consistent with AB 32 goals and sets longer-term goals to achieve GHG reductions beyond the 2020 target. Achieving the emission levels described in the County CAP would ensure that GHG emissions from activities identified in the County CAP would not have a significant impact on the environment.

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8 Sutter County, 2011. *Sutter County 2030 General Plan.* April 28, 2011. Available at https://www.suttercounty.org/home/showpublisheddocument/2802/637555790981470000. Accessed February 2022.

9 Sutter County, 2010. *Sutter County Climate Action Plan.* July 2010. Available at https://www.suttercounty.org/home/showpublisheddocument/2876/637555889174770000. Accessed February 2022.

3.4.2 Methods of Analysis

Project-related GHG emissions fall into two categories: short-term emissions due to construction, and long-term, on-going emissions due to operations. GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0, the on-road emissions model EMFAC2021, and OFFROAD2011, all approved by the California Air Resources Board. During construction, the Project would generate GHG emissions from the use of heavy-duty construction equipment, and from use of employee vehicles, vendor trucks, and haul trucks. Then, during operation, the project would generate GHG emissions from the use of employee vehicles, trucks, and TRUs. Estimated construction- and operation-related GHG emissions are presented below in **Table 3.2** and **Table 3.3,** respectively.

3.4.3 Impact Analysis

Consistency with the Sutter County Climate Action Plan

The County CAP was adopted in 2010 and established a GHG emissions reduction target of 15 percent below baseline emission levels by the year 2020, consistent with the AB 32 Scoping Plan. In addition, the CAP sets the County on-course to achieve emissions reductions beyond 2020; projects that are consistent with the CAP would not be considered cumulatively considerable.[10]

For small projects with minor levels of GHG emissions, the County published the GHG Pre-Screening Measures for Sutter County (GHG Pre-Screening Measures) in 2016. The GHG Pre-Screening Measures provide a two-tier screening procedure that uses a threshold of 3,000 metric tons of CO2e per year, based on a San Bernardino County statewide study that determined that projects that generate less than 3,000 metric tons of CO2e per year have a negligible contribution to overall emissions. The Greenhouse Gas Pre-Screening Measures for Sutter County state that projects can be screened out based on project type (Tier 1) or project size (Tier 2). Projects that meet the criteria of Tier 1 or Tier 2 would not have the potential to exceed 3,000 metric tons CO2e per year. This level can be considered an emissions threshold such that if the project meets the Tier 1 or Tier 2 criteria, it would be considered not to have a significant impact on the environment.[11]

The most appropriate land use type in the screening table that can be applied to the Project is General Truck Yard, which cannot be screened out by either Tier 1 nor Tier 2 pre-screening.[12] However, the Project does not include construction of any structures, and many of the GHG reduction measures described in the CAP screening tables are not applicable to the Project. Therefore, since the County considers projects that generate less than 3,000 MT CO2e per year to have a negligible contribution to overall emissions, project-related GHG emissions were

[10] Sutter County, 2010. *Sutter County Climate Action Plan.* July 2010. Available at https://www.suttercounty.org/home/showpublisheddocument/2876/637555889174770000. Accessed March 2022.

[11] Sutter County, 2016. *Greenhouse Gas Pre-Screening Measures for Sutter County.* June 28, 2016. Available at https://www.suttercounty.org/home/showpublisheddocument/2694/637555713990130000. Accessed March 2022.

[12] Sutter County, 2011. *Greenhouse Gas Emissions Screening Tables.* Available at https://www.suttercounty.org/home/showpublisheddocument/2696/637555714010300000. Accessed March 2022.

quantified using the CalEEMod, EMFAC2021, and OFFROAD 2021 emissions models and compared to the Sutter County threshold of 3,000 MT CO2e per year.

Construction

Construction of the Project is anticipated to begin in June 2022, and would conclude in mid-July 2022. GHG emissions during construction would be generated from a variety of sources including construction equipment use and vehicle use. Total construction emissions that would result from the Project are presented in **Table 3.2.**

TABLE 3.2
CONSTRUCTION-RELATED GHG EMISSIONS[a]

Construction Year	MT CO2e
2022	54.7
Sutter County Threshold	3,000
Exceeds Threshold?	No

SOURCE: Attachment B.

As shown in Table 3.2, construction of the Project would generate approximately 54.7 MT CO2e in 2022 and would not exceed the County's significance threshold of 3,000 MT CO2e per year, as specified in the Sutter County 2016 GHG Pre-Screening Measures supplement to the CAP.

Operations

Operation of the Project would generate GHG emissions from mobile sources (i.e., passenger automobiles and trucks traveling to and from the Project site), stationary sources (i.e., operation of diesel-powered emergency generator), area sources (i.e., use of consumer products and/or landscaping equipment), and energy-use. Total operational emissions that would result from the Project are presented in **Table 3.3**.

TABLE 3.3
OPERATIONAL GHG EMISSIONS[a]

	MT CO2e
Annual Operational Emissions	1,686.9
Sutter County Threshold	3,000
Exceeds Threshold?	No

SOURCE: Attachment B.

As shown in Table 3.3, operational emissions would be approximately 1,686.9 MT CO2e per year, and would not exceed the threshold of 3,000 MT CO2e per year, as specified in the 2016 GHG Pre-Screening Measures supplement to the County CAP.

Conclusion

As discussed above, the Project would generate emissions that would not exceed the County GHG threshold of 3,000 MT CO2e per year, as discussed in the County's 2016 GHG Pre-Screening Measures supplement to the CAP. Therefore, the Project would be consistent with the County CAP. Therefore, the Project would not generate emissions, either directly or indirectly, that may have a significant impact on the environment, and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs. The Project would have a less-than-significant impact with respect to GHG emissions.

CHAPTER 4
Noise

4.1 Background Information

4.1.1 Noise Principles and Descriptors

Noise is generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude. When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to extremely low and extremely high frequencies. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements.

These successive additions of sound to the community noise environment change the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The following are the most frequently used noise descriptors:

- **L_{eq}:** The equivalent-continuous sound level, used to describe noise over a specified period of time in terms of a single numerical value. The L_{eq} of a time-varying signal and that of a steady signal are the same if they deliver the same acoustic energy over a given time. May also be referred to as the "average sound level."
- **L_{max}:** The maximum, instantaneous noise level experienced during a given period of time.

- **L_{min}:** The minimum, instantaneous noise level experienced during a given period of time.
- **L_{dn}:** The average A-weighted noise level during a 24-hour day, obtained after 10 dB are added to noise levels measured between 10 p.m. and 7 a.m. to account for nighttime noise sensitivity. Also referred to as the "day-night average noise level" (DNL). The L_{dn} is the metric used by the Noise Element of the *Envision San José General Plan* (General Plan) for assessing the land use compatibility of non-aviation sources.
- **CNEL:** The community noise equivalent level. This is the average A-weighted noise level during a 24-hour day that is obtained after 5 dB are added to measured noise levels between 7 p.m. and 10 p.m. and 10 dB are added to noise levels between 10 p.m. and 7 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The CNEL is the metric generally used for assessment of aircraft noise. The result is normally about 0.5 dBA higher than L_{dn} using the same 24-hour data.[13]

4.1.2 Vibration Principles and Descriptors

As described in the Federal Transit Administration's (FTA) Transit Noise and Vibration Impact Assessment, groundborne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard.[14] In contrast to airborne noise, groundborne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving, and operation of heavy earth-moving equipment.

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. The PPV is most frequently used to describe vibration impacts to buildings. The effects of groundborne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 in/sec PPV.[15]

4.2 Existing Setting

4.2.1 Existing Ambient Noise Levels

The Project site is within an area of unincorporated Sutter County primarily developed with agricultural and industrial uses. Environmental noise in the vicinity of the Project site is dominated by vehicle traffic on roadways such as State Route (SR) 99, Pacific Avenue and West Riego Road. Existing truck traffic along Pacific Avenue is generated by the Sysco food processing facility one-quarter mile north of the Project site and the Holt Construction Equipment

[13] California Department of Transportation, *Technical Noise Supplement*, September 2013
[14] Federal Transit Administration (FTA), Transit Noise and Vibration Impact Assessment, 2018.
[15] Federal Transit Administration (FTA), Transit Noise and Vibration Impact Assessment, 2018.

yards across from the Project site and one-half mile south of the Project site. The existing agricultural fields throughout the area would only be expected to generate occasional modest levels of noise from tilling, harvesting and maintenance activities, which occur seasonally. There is one rural residence located approximately 600 feet south of the Project site on Pacific Avenue.

A long-term noise level measurement was conducted in the Project vicinity of the only existing residential use within 2 miles of the Project site in February of 2022 to establish existing ambient noise conditions. Additionally, two short-term measurements were taken at locations of potential future residential development nearest the Project site. The noise survey was conducted using a Larson Davis Model LxT2 sound level meter that was calibrated before use and operated according to the manufacturer's written specifications. The long-term measurement logged hourly average noise levels over a 24-hour weekday period from February 23rd to February 24th, 2022. The short-term measurements were conducted over a 20-minute daytime period which were from which long-term metrics could be estimated using the local diurnal patterns captured in the long-term measurement. The measured average noise level (L_{eq}) during different averaging periods are shown in **Table 4.1** as are the calculated Ldn. The measurement locations are identified on **Figure 4.1**.

TABLE 4.1
EXISTING NOISE ENVIRONMENTS IN THE PROJECT VICINITY

	Noise Levels (dBA)				
Noise Monitoring Location	Day-Night Noise Level (Ldn)	24-Hour L_{eq}	Daytime[a] Hourly Average L_{eq}	Nighttime[b] Hourly Average L_{eq}	Primary Noise Sources
LT-1: Single Family Residence 600 feet south of the Project Site on Pacific Avenue	73	68	69	66	Traffic on Pacific Avenue and distant traffic on SR 99
ST-1: Sankey Road 1150 feet west of Pacific	NA	NA	66	NA	Distant traffic on Pacific Avenue and SR 99
ST-2: Pacific Avenue 2100 feet north of West Riego Road	NA	NA	70	NA	Traffic on Pacific Avenue and distant traffic on SR 99

NOTES:
dBA = A-weighted decibels; L_{dn} = Day-night noise level; L_{eq} = equivalent-continuous sound level; SR = State Route
[a] Daytime hours are considered to be 7 a.m. to 10 p.m.
[b] Nighttime hours are considered to be 10 p.m. to 7 a.m.

SOURCE: Environmental Science Associates in 2022.

Existing roadside noise levels along roadway segments near the Project site were modeled to provide existing weekday noise level estimates for the roadway segments near the Project site. The existing roadside noise levels are presented in **Table 4.2** during the weekday peak commute hour.[16] These modeled noise levels reflect only the noise generated by traffic on the identified roadway segments; they do not include other sources in the area, such as rail and highway noise where these other sources are nearby.

16 Existing and future traffic volumes provided by the transportation analysis were in the average daily trip metric for weekdays. These values were adjusted to reflect a peak-traffic-hour volume percentage of 5 percent.

SOURCE: CENSUS TIGER, 2020; MAXAR, 2021; ESA, 2022

Platinum Trucking Express

Figure 4.1
Noise Monitoring Locations

ESA

TABLE 4.2
EXISTING TRAFFIC NOISE ALONG ROADS IN THE PROJECT VICINITY

Roadway Segment	Existing Hourly (dBA)
Weekday Peak-Hour Noise Levels	
Sankey Rd from I99 to Pacific Ave	61.2
Sankey Rd from Garden Hwy to I99	47.8
Sankey Rd from W Riego Rd to Pleasant Grove Rd	59.7
Riego Rd from I99 to Pacific Ave	68.0
Riego Rd from Garden Hwy to I99	51.5
Riego Rd from Pacific Ave and Pleasant Grove Rd	52.1
Pacific Ave from Riego Rd to Sankey Rd	60.7

NOTE: dBA = A-weighted decibels

SOURCE: Traffic data compiled by Fehr & Peers in February 2022 and noise modeling performed by Environmental Science Associates in 2022.

4.2.2 Existing Groundborne Vibration Levels

The only sources of groundborne vibration in the Project site vicinity are heavy-duty vehicular travel (e.g., refuse trucks, haul trucks) on local roadways. Trucks traveling at a distance of 50 feet typically generate groundborne vibration velocity levels of around 63 VdB (approximately 0.006 in/sec PPV), and these levels could reach 72 VdB (approximately 0.016 in/sec PPV) where trucks pass over discontinuities in the roadway.[17]

4.2.3 Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, and auditoriums generally are more sensitive to noise than are commercial and industrial land uses. The only existing receptor within 2 miles of the Project site is one rural residence located approximately 600 feet south of the Project site on Pacific Avenue.

Additionally, the Sutter Pointe Specific Plan adopted by the County designates multi-family residential land uses for future development approximately 0.2 miles west of the Project site and directly on Pacific Avenue approximately 0.75 miles south of the Project site. It is reasonable to assume that the setback of these uses would be at least 30 feet from the roadway.

Sutter County General Plan Noise Element

The purpose of the Sutter County General Plan Noise Element contains policies and programs that are intended to protect Sutter County residents, businesses, and visitors by establishing maximum allowable interior and exterior noise levels, as well as maximum noise standards from

[17] Federal Transit Administration (FTA), Transit Noise and Vibration Impact Assessment, 2018.

stationary sources and vibration activities. The General Plan policies most applicable to the Project are identified below.

Policy N 1.2: Exterior Incremental Environmental Noise Standards. Require new development to mitigate noise impacts on noise sensitive uses where the projected increases in exterior noise levels exceed those shown in **Table 4.3**, below.

TABLE 4.3
EXTERIOR INCREMENTAL ENVIRONMENTAL NOISE STANDARDS FOR NOISE-SENSITIVE USES (dBA)

Residences and Buildings Where People Normally Sleep [a]		Institutional Land Uses with Primarily Daytime and Evening Uses [b]	
Existing L_{dn}	Allowable Noise Increment	Existing Peak Hour L_{eq}	Allowable Noise Increment
45	8	45	**12**
50	5	50	**9**
55	3	55	**6**
60	2	60	**5**
65	1	65	**3**
70	1	70	**3**
75	0	75	**1**
80	0	80	0

Policy N 1.4: New Stationary Noise Sources. Require new stationary noise sources to mitigate noise impacts on noise-sensitive uses wherever the noise from that source alone exceeds the exterior levels specified in **Table 4.4**, below.

TABLE 4.4
NOISE LEVEL STANDARDS FROM STATIONARY SOURCES

Noise Level Descriptor	Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Hourly Leq, dB	55	45
Maximum level, dB	70	65

SOURCE: Sutter County General Plan (2011), Noise Element, Table 11-3.

Policy N 1.6: Construction Noise. Require discretionary projects to limit noise-generating construction activities within 1,000 feet of noise-sensitive uses (i.e., residential uses, daycares, schools, convalescent homes, and medical care facilities) to daytime hours between 7:00 A.M. and 6:00 P.M. on weekdays, 8:00 A.M. and 5:00 P.M. on Saturdays, and prohibit construction on Sundays and holidays unless permission for the latter has been applied for and granted by the County.

Policy N 1.7: Vibration Standards. Require construction projects and new development anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby noise-sensitive uses based on Federal Transit Administration criteria as shown in **Table 4.5**, below.

TABLE 4.5
GROUNDBORNE VIBRATION IMPACT CRITERIA FOR GENERAL ASSESSMENT

Land Use Category	Impact Levels (VdB)		
	Frequent Events[a]	Occasional Events[b]	Infrequent Events[c]
Category 1: Buildings where vibration would interfere with interior operations	65	65	**65**
Category 2: Residences and buildings where people normally sleep	72	75	**80**
Category 3: Institutional land uses with primarily daytime uses	75	78	**83**

NOTES:
[a] "Frequent Events" is defined as more than 70 vibration events of the same source per day.
[b] "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.
[c] "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.
This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels

SOURCE: Sutter County General Plan (2011), Noise Element, Table 11-4.

4.3 Impacts and Mitigation Measures

This section describes the impact analysis relating to noise and vibration for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant.

4.3.1 Thresholds of Significance

Based on the CEQA Guidelines, an impact related to noise and/or groundborne vibration project would be significant if implementing the project would:

- Generate 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;
- Generate excessive groundborne vibration or groundborne noise levels; or
- For a project located within the vicinity of a private airstrip or an airport land use plan area or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, expose people residing or working in the area to excessive noise levels.

4.3.2 Methodology

Following is a description of the methodology used to evaluate the impacts of Project site development relative to each of the significance thresholds cited above.

Substantial Increase in Noise

The first threshold of significance examines whether Project construction and/or operations would generate noise in excess of established noise standards which are different for stationary, mobile, and construction noise sources.

Evaluation of the Project relative to this threshold under Impact 1 focuses on operational increases in ambient noise level from stationary sources, while Impact 2 focuses on the Project's contribution to localized increases is traffic-generated noise along roadways, while Impact 3 focuses on construction-related noise generated by the Project.

Stationary-Source Noise

The proposed trucking facility could substantially increase noise levels at noise-sensitive land uses or could expose sensitive receptors to noise levels exceeding standards established by Policy N 1.4 of the County General Plan. Specifically, this policy establishes a daytime exterior noise standard of 55 dBA (hourly Leq) and a nighttime standard of 45 dBA.

The site would serve as a truck storage area and an area for trucks being serviced in the proposed shop which would perform oil changes, and light engine repairs. Truck maneuvering and operation of transportation refrigeration units (TRUs) would be the sources of on-site stationary noise to be evaluated. The Project proposes operations to occur 7:00 am - 5:00 pm Mon-Saturday; and closed Sundays. Therefore, only the daytime standards are used in this analysis.

Project-Generated Traffic Noise

Guidance on the significance of changes in ambient noise levels from transportation is provided by the 1992 findings of the Federal Interagency Committee on Noise (FICON), which assessed the annoyance effects of changes in ambient noise levels caused by aircraft operations.[18] The recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. The term "annoyance" summarizes the general adverse reaction of people to noise that interferes with speech, disturbs sleep, or interferes with the desire for a tranquil environment. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, they apply to all sources of transportation noise described in terms of cumulative noise exposure metrics such as the DNL. The measures of a substantial increase in transportation noise exposure as recommended by FICON are presented in **Table 4.6**.

TABLE 4.6
MEASURES OF A SUBSTANTIAL INCREASE IN TRANSPORTATION NOISE EXPOSURE

Ambient Noise Level without Project (DNL)	Significant Impact Assumed to Occur if Project Site Development Increases Ambient Noise Levels by:
<60 dB	+ 5.0 dB or more
60–65 dB	+ 3.0 dB or more
>65 dB	+ 1.5 dB or more[a]

NOTES:
dB = decibels; DNL = day-night average noise level
[a] According to the Federal Interagency Committee on Noise report, the 1.5 A-weighted decibel (dBA) increase in environments that exceed 65 dBA is not necessarily a significant increase but, rather, an increase warranting further investigation.

SOURCE: Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.

[18] Federal Interagency Committee on Noise, Federal Agency Review of Selected Airport Noise Analysis Issues, August 1992.

The rationale for the Table 4.6 criteria is that, as ambient noise levels increase, a small increase in decibel levels is sufficient to cause significant annoyance. The quieter the ambient noise level is, the more the noise can increase (in decibels) before it causes significant annoyance. The 5-dBA and 3 dBA noise level increases presented in Table 6 also correlate directly with noise level increases that Caltrans consider to represent "readily perceivable" and "barely perceivable," respectively, for short-term noise increases.

Traffic noise levels were modeled using the algorithms of the Federal Highway Administration's Traffic Noise Model for the existing and existing plus project scenarios. The resulting noise levels were then compared to existing modeled or monitored conditions, depending on the contribution of other noise sources in the local environment, to determine significance.

Construction Noise

Sutter County General Plan Policy N 1.6 restricts noise-generating construction activities within 1,000 feet of noise-sensitive uses (i.e., residential uses, daycares, schools, convalescent homes, and medical care facilities) to daytime hours between 7:00 A.M. and 6:00 P.M. on weekdays 8:00 A.M. and 5:00 P.M. on Saturdays, and prohibits construction on Sundays and holidays unless permission for the latter has been applied for and granted by the County.

This analysis assesses the potential for construction-related noise to cause a substantial temporary or periodic increase in ambient noise levels at the closest existing offsite noise-sensitive receptors, future onsite sensitive receptors, and planned offsite sensitive receptors using FTA methodology for general quantitative noise assessment.[19] The FTA methodology calls for estimating a combined noise level from the simultaneous operation of the two noisiest pieces of equipment expected to be used in each construction phase. This method applies usage factors to each piece of equipment analyzed to account for the time that the equipment is in use over the specified time period. Project construction noise impacts are evaluated at sensitive receptor locations to determine whether the Project would result in an exceedance of FTA criterion for residential uses of 90 dBA daytime Leq. If these quantitative criteria are exceeded, the evaluation then considers the duration and severity of the exceedance to determine whether the Project would result in a substantial temporary increase in noise levels.

Groundborne Vibration

Impacts from groundborne vibration during Project site construction are assessed in Impact 2, using vibration damage threshold criteria expressed in PPV for architectural damage. Equipment or activities that typically generate continuous vibration include but are not limited to: excavation equipment; static compaction equipment; and vibratory compaction equipment. General Plan Policy N 1.7 requires new development to minimize continuous vibration impacts on adjacent

[19] U.S. DOT, FTA, *Transit Noise and Vibration Impact Assessment Manual*, September 2018, Section 7, Quantitative Noise Assessment, pp. 172–179, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf, accessed January 25, 2019.

uses during demolition and construction and established standards, as indicated in Table 5 above. For short-term construction, the infrequent criterion is applied.

With respect to building damage, Caltrans's measure of the threshold of architectural damage for conventional sensitive structures is 0.5 in/sec PPV for new residential structures and modern commercial buildings and 0.25 in/sec PPV for historic and older buildings.[20]

Vibration impacts were estimated using reference vibration levels for construction equipment in concert with vibration propagation equations published by FTA, and estimating the potential for resultant vibration levels in excess of the General Plan standards.

Exposure of People to Excessive Noise Levels

The Project site is not located within an airport land use plan area, within two miles of a public airport, or within the vicinity of a private airstrip. Therefore, there would be no impact with respect to exposure of people residing or working in the area to excessive noise levels from an airport or airfield and this topic is not discussed further.

4.3.3 Project Impacts

Impact 1: Would the project result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan, noise ordinance, or other land use plan?

Stationary Noise Sources

Operation of the Project would increase ambient noise levels in the immediate vicinity primarily through the on-site movement of trucks and heavy machinery.

Table 4.7 shows noise levels associated with semi-trailer truck maneuvering including operation of transportation refrigeration units.21 As shown in the table, the highest noise levels generated during a semi-trailer truck operation would be 44 dBA at 600 feet, as it maneuvers into a loading dock which would be the approximate closest distance of the proposed truck yard to the nearest receptor. Once a truck is parked, the TRU could continue to operate, generating noise level of 40 dBA at a distance of 600 feet. This peak operational noise level would be well below the County's daytime noise standard of 55 dBA for daytime operations. If truck maneuvering were to occur during nighttime hours this activity would also be below the nighttime standard of 45 dBA. Therefore, the impact of truck operations at the proposed facility would be less than significant with respect to 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.

[20] California Department of Transportation (Caltrans), Transportation and Construction Vibration Guidance Manual, September 2013.

[21] Environmental Science Associates, *Fresh and Easy Distribution Truck Noise Study*, December 3, 2008.

TABLE 4.7
SEMI-TRAILER TRUCK OPERATIONS AND DELIVERY

Noise Levels	Equivalent Continuous Noise Level (Leq), in DBA			
Scenario	**50 Feet (reference distance)**	**Distance to Existing Receptor: 600 feet**	**Distance to Future Sankey Road Residential Receptor: 0.2 mi (1,050 feet)**	**Distance to Future Pacific Avenue Residential Receptor: 0.75 mi (3,960 feet)**
Truck Maneuvering into Loading Area with Operating Transportation Refrigeration Unit	66	44	39	28
Transportation Refrigeration Unit On with Engine at Idle	66	44	39	28
Transportation Refrigeration Unit On with Engine Off	62	40	35	24
Sutter County Daytime Noise Standard		55	55	55

NOTES: dBA = A-weighted decibels

SOURCE: Environmental Science Associates, Fresh and Easy Distribution Truck Noise Study, December 3, 2008; Appendix NOI.

Project-Generated Traffic Noise

Vehicle trips generated by the Project would generate roadway noise in the Project vicinity. The significance of traffic noise levels is determined by comparing the increase in noise levels (from the traffic contribution only) to increments recognized as significant.

Traffic noise levels were determined based on the transportation analysis, and assessed in this section for the following scenarios:

1. Existing traffic conditions during the weekday peak commute hour, as estimated based on average daily traffic (using data generated for the project's transportation analysis); and
2. Existing plus project during the weekday peak commute hour.

All traffic volumes provided in the Project's transportation analysis and used in this roadway noise analysis were provided by Fehr & Peers Transportation Consultants. Modeled weekday noise level estimates for the most highly affected roadway segments near the Project site are presented in **Table 4.8.** As indicated in the table, increase in traffic noise would be less than the applicable significance criteria and the impact of increases in roadway noise would be less than significant.

TABLE 4.8
TRAFFIC NOISE INCREASES ALONG ROADS IN THE PROJECT VICINITY

Roadway Segment	Existing	Applicable Increase Threshold (dB)	Existing plus Project	dBA Difference	Significant Increase?
Weekday Peak-Hour Noise Levels					
Sankey Rd from I99 to Pacific Ave	61.2	3	61.3	0.1	No
Sankey Rd from Garden Hwy to I99	47.8	5	47.8	0.0	No
Sankey Rd from W Riego Rd to Pleasant Grove Rd	59.7	5	60.3	0.6	**No**
Riego Rd from I99 to Pacific Ave	68.0	3	67.9	-0.1	No
Riego Rd from Garden Hwy to I99	51.5	5	51.5	0.0	No
Riego Rd from Pacific Ave and Pleasant Grove Rd	52.1	5	53.1	1.0	No
Pacific Ave from Riego Rd to Sankey Rd	60.7	3	61.2	0.5	No

NOTES:
dB = decibels; dBA = A-weighted decibels; NA = not applicable

SOURCES: Traffic data compiled by Fehr & Peers in 2022, and modeling performed by Environmental Science Associates in 2022.

Construction Noise

Construction of the Project would require demolition of existing structures. However, no structures are proposed to be erected and only fine grading and paving of automobile and truck parking areas would be required. **Table 4.9** shows typical noise levels associated with various types of standard construction equipment.

TABLE 4.9
TYPICAL MAXIMUM NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Construction Equipment	Noise Level (dBA, L_{max} at 50 feet)
Backhoe	78
Excavator	81
Compactor	83
Air Compressor	78
Dozer	82
Grader	85
Paver	77
Roller	80
Front-End Loader	79
Truck	76

NOTES:
dBA = A-weighted decibels; L_{max} = maximum, instantaneous noise level experienced during a given period of time
These are maximum field measured values at 50 feet as reported from multiple samples.

SOURCE: Federal Highway Administration, *Roadway Construction Noise Model User Guide*, 2006.

Sutter County does not establish quantitative noise limits for demolition or construction activities occurring in the county. During Project construction, exterior noise levels could affect the nearby existing sensitive receptor in the vicinity. The nearest sensitive receptor to the Project site is a residence located approximately 180 feet south of the center of the Project site.

Consistent with the general assessment methodology of the FTA, the two noisiest pieces of construction equipment (grader and dozer) listed in Table 4.9 were assumed to operate simultaneously. Using the Roadway Construction Noise Model of the Federal Highway Administration, the resultant noise level at the nearest receptor would be 61 dBA. The combined noise level at existing offsite receptors would not exceed the FTA's criterion of 90 dBA at residential sensitive receptor locations.

Per Policy N 1.6 of the County's General Plan, noise-generating construction activities within 1,000 feet of noise-sensitive uses (i.e., residential uses, daycares, schools, convalescent homes, and medical care facilities) is limited to daytime hours between 7:00 A.M. and 6:00 P.M. on weekdays, 8:00 A.M. and 5:00 P.M. on Saturdays, and prohibited construction on Sundays and holidays unless permission for the latter has been applied for and granted by the County. The Project would be required to adhere to General Plan Policy N 1.6. Therefore, since construction noise is temporary, intermittent, and limited to the daytime hours shown above, the impact would be less than significant.

Impact 2: Would the project expose people to or generate excessive groundborne vibration or groundborne noise levels during construction or operation?

This analysis addresses vibration impacts generated by construction activities at existing off-site buildings. Equipment or activities that typically generate continuous vibration include but are not limited to: excavation equipment; impact pile drivers; static compaction equipment; vibratory pile drivers; pile-extraction equipment and vibratory compaction equipment. Of these equipment types only a vibratory roller would be likely to be used in the paving of the northwest corner of the Project.

General Plan Policy EC-2.3 requires new development to minimize impacts of continuous vibration on adjacent uses during demolition and construction. A continuous vibration limit of 0.20 in/sec PPV (equivalent to 93 VdB) is applied to minimize the potential for cosmetic damage at buildings of normal conventional construction.

Policy N 1.7 requires new development to minimize continuous vibration impacts on adjacent uses during demolition and construction, as indicated in Table 8 above. An estimate of construction-related vibration levels is presented in **Table 4.10**, below. As can be seen from this table, predicted vibration levels are below the criteria established by Policy N 1.7 for human annoyance. These predicted levels are also below the 93 VdB commonly associated with the risk of building damage.[22] Therefore, vibration impacts from Project construction would be less than significant.

22 Federal Transit Administration (FTA), Transit Noise and Vibration Impact Assessment, 2018.

TABLE 4.10
VIBRATION LEVELS FOR CONSTRUCTION ACTIVITY

Equipment	Vibration at 25 Feet (reference)	Distance to nearest Structure (feet)	Vibration at Receptor	Threshold	Significant?
Loaded Trucks	86	200	59	80	No
Large Bulldozer	87	200	60	80	No
Vibratory Roller	94	200	67	80	No

SOURCES: California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, September 2020. Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018.

Attachment A

Draft Traffic Study

Memorandum

Date:	March 22, 2022
To:	Ms. Bailey Setzler – Environmental Science Associates Ms. Cheri Velzy – Environmental Science Associates
From:	David Manciati – Fehr & Peers
Subject:	**Platinum Express Truck Yard – Draft Traffic Study**

RS21-4134

Fehr & Peers has completed a traffic study for the Platinum Express Truck Yard project. The project is located on approximately 8.33 acres on the west side of Pacific Avenue between Sankey Road and W. Riego Road in Sutter County. The project would keep approximately 16,100 square feet of existing building space to be leased to a truck/trailer repair business. The project would also include pavement of 115 truck parking spaces and 109 car parking spaces.

This memorandum documents the existing traffic setting, project travel characteristics, operations analysis, vehicle miles traveled (VMT) impact assessment, and a site access review.

Key Findings

This section summarizes key findings from the traffic study. The sections that follow provide additional analysis detail. The key findings include:

- Sankey Road/State Route (SR) 99 currently operates worse than Sutter County's adopted LOS threshold during both peak hours, with unacceptable operations occurring from the side street. The project would exacerbate unacceptable operations.
- Average maximum vehicle queues are expected to be less than corresponding storage lengths at most study intersections except at the Sankey Road/SR 99 intersection. The intersection is designed with a refuge area between the northbound and southbound SR 99 travel lanes to allow drivers making left turns from SR 99 or through movements on Sankey Road to navigate the intersection in two stages. Microsimulation shows that the eastbound through movement from the refuge area queues upstream, resulting in vehicles queueing in the southbound SR 99 left-turn lane and eastbound Sankey Road approach. However, the vehicle queues do not exceed available storage or impact

southbound SR 99 operations. The project is forecasted to add one vehicle to the southbound left-turn movement during the AM and PM peak hours, which would contribute to the southbound left-turn vehicle queue. However, the vehicle queue would not exceed available storage.

- To reduce vehicle delay at Sankey Road/SR 99 to existing conditions levels, the project should be conditioned to prohibit all inbound and outbound traffic to and from SR 99 (or areas west of SR 99) from using Sankey Road. Project traffic should, instead, use W. Riego Road and Pacific Avenue. This improvement measure would require the applicant to fully fund installation of required directional signing (on-site or off-site) and conversion of project driveways to be left-in and right-out only.
- The project access analysis showed that northbound left-turn lanes into the project site "may be desirable" (see discussion related to AASHTO left-turn treatment guidance). In addition, a shared outbound left- and right-turn lane is adequate at both project driveways to accommodate the low egress volumes.
- The sight distance evaluation showed that project driveways maintain adequate sight distance to approaching vehicles under Existing Plus Project conditions.
- Site access/circulation evaluation was provided by the applicant. The vehicles shown in the site plan (February 10, 2022) can be accommodated without encroachment.
- The existing cross section on Pacific Avenue is consistent with Sutter County Standard Drawing H-3 for a rural local road. In addition, the project driveways on Pacific Avenue are set back to provide future right-of-way for a 107-foot urban minor arterial per the *Sutter Pointe Specific Plan*, providing compliance with Implementation Program M 2-B in the Sutter County General Plan. The County will work with the applicant to condition the project consistent with Implementation Program M 2-E in the Sutter County General Plan.
- According to AASHTO's Green Book 7th Edition (2018), Pacific Avenue does not need to be widened to accept project truck traffic. If the ADT on Pacific Avenue increases above 2,000 vehicles per day, AASHTO recommends widening the traveled way to 24 feet.
- Regarding bicycle and pedestrian facilities, the County will work with the applicant to condition the project consistent with the *Sutter Pointe Specific Plan* and Implementation Program M 5-C in the Sutter County General Plan.
- The proposed project would result in workplace VMT per job that does not meet CEQA's significance criteria of achieving a level 15 percent below the regional average VMT per employee. A transportation demand management (TDM) program is presented as a recommended improvement. However, the improvement would not reduce workplace VMT per job to 15 percent below the regional average.

Regulatory Setting

Senate Bill 743

SB 743 creates or encourages several statewide changes to the evaluation of transportation and traffic impacts under CEQA. First, it directs the Governor's Office of Planning and Research (OPR) to amend the State CEQA Guidelines to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the new metrics beyond TPAs. In the amended State CEQA Guidelines, OPR selected VMT as the preferred transportation impact metric and applied its discretion to recommend the use of VMT statewide. The California Natural Resources Agency certified and adopted the amended State CEQA Guidelines in December 2018. The amended State CEQA Guidelines state that "generally, VMT is the most appropriate measure of transportation impacts" and the provisions requiring the use of VMT apply statewide as of July 1, 2020.

SB 743 also added Section 21099 to the Public Resources Code, which states that automobile delay, as described by level of service (LOS) or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment upon certification of the State CEQA Guidelines by the California Natural Resources Agency. Since the amended State CEQA Guidelines were certified in December 2018, changes in LOS or similar measures of vehicular capacity or traffic congestion are not considered a significant impact on the environment.

Technical Advisory on Evaluating Transportation Impacts in CEQA

To aid in SB 743 implementation, OPR released a Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) in December 2018. The Technical Advisory provides advice and recommendations to CEQA lead agencies on how to implement SB 743 changes. This includes technical recommendations regarding the assessment of VMT, thresholds of significance, VMT mitigation measures, and screening thresholds for certain land use projects. Lead agencies may consider and use these recommendations at their discretion.

State Route 99 Transportation Concept Report

Transportation Concept Reports (TCRs) are planning documents that identify existing and future route conditions, as well as future needs, for each route on the state highway system. Per the TCR for SR 99 (July 2017), the highway is expected to operate at LOS D within the study area in 2035. The TCR also lists two future projects within the study area, including construction of the Placer Parkway/SR 99 interchange near Sankey Road and construction of SR 99 bus/carpool lanes from I-5 through Sankey Road.

Sacramento Area Council of Governments

SACOG is the MPO governing the six-county Sacramento region consisting of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties and their 22 cities. SACOG is responsible for the preparation of, and updates to, the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the associated Metropolitan Transportation Improvement Program (MTIP) for the six-county region. The SACOG 2020 MTP/SCS provides a 20-year transportation vision and corresponding list of transportation projects. The MTIP identifies short-term projects (i.e., projects with a 7-year horizon) in more detail. The current SACOG 2020 MTP/SCS was adopted by the SACOG board on November 18, 2019.

Sutter County General Plan

The Sutter County General Plan (April 2011) establishes the County's LOS policy for county roads. Policy M 2.5 is included below:

> "Develop and manage the County roadway segments and intersections to maintain LOS D or better during peak hours, and LOS C or better at all other times. Adjust for seasonality. These standards shall apply to all County roadway segments and intersections, unless otherwise addressed in an adopted specific plan or community plan"

Sutter Pointe Specific Plan

The Sutter Pointe Specific Plan, which was approved by the Sutter County Board of Supervisors in June 2009, encompasses over 7,500 acres of land adjacent SR 99, north of the Sutter County line. The plan proposes a mix of land uses, including employment centers, different housing types, shopping, recreation amenities, schools, community services, open space, and various public uses. In October 2014, the Board of Supervisors approved an amendment to the *Sutter Pointe Specific Plan* affecting the eastern plan area located south of Sankey Road, North of Riego Road and east of Pacific Avenue. In November 2020, the Board of Supervisors approved *Lakeside at Sutter Pointe*, which is the first phase of development in the Specific Plan.

The proposed project lies within the *Sutter Pointe Specific Plan* and is therefore subject to its design guidelines.

Existing Traffic Setting

This section describes the existing setting related to roadway, bicycle, and pedestrian facilities, which is the baseline scenario upon which project impacts are evaluated.

Study Area

The transportation study area was selected based on intersection and roadway proximity to the proposed project site and truck routes to and from the site. **Figure 1** shows the study area, including the five study intersections and the location of the proposed Platinum Express truck yard. The study area also includes bicycle and pedestrian facilities near the proposed project. The study intersections are as follows:

1. Sankey Road/State Route 99
2. Sankey Road/Pacific Avenue
3. W. Riego Road/State Route 99 Southbound Ramps
4. W. Riego Road/State Route 99 Northbound Ramps
5. W. Riego Road/Pacific Avenue

The W. Riego Road/SR 99 ramp terminal intersections are traffic signal controlled, while the remaining study intersections are side-street stop controlled.

The four study roadway segments listed below are two-lane rural roadways.

1. Sankey Road – SR 99 to Pacific Avenue
2. Pacific Avenue – South of Sankey Road
3. Pacific Avenue – North of W. Riego Road
4. W. Riego Road – SR 99 to Pacific Avenue

Roadway Network

The study area is in a rural setting and is served by State Route 99 and local, collector, and arterial rural roads. The key roadways near the proposed project are described below.

- State Route 99 – is a major route that spans California's Central Valley. Near the project site, SR 99 is a four-lane freeway with a posted speed limit of 65 MPH. It intersects Sankey Road as a side-street stop-controlled intersection.
- Pacific Avenue – is a north-south rural local road east of SR 99 that extends between Sankey Road and W. Riego Road. The proposed project fronts Pacific Avenue about one-quarter mile south of Sankey Road. The posted speed limit is 55 MPH.
- Sankey Road – is a two-lane east-west roadway in Sutter County that extends from Garden Highway to the Placer County line. Between SR 99 and Pleasant Grove Road, Sankey Road is considered a rural minor arterial. The posted speed limit is 55 MPH in the study area.
- W. Riego Road – is a two-lane east-west road that extends from its western terminus at Garden Highway to the Placer County line, where it becomes Baseline Road. West Riego Road is considered a rural major collector between SR 99 and Pleasant Grove Road. It has a posted speed limit of 55 MPH in the study area.

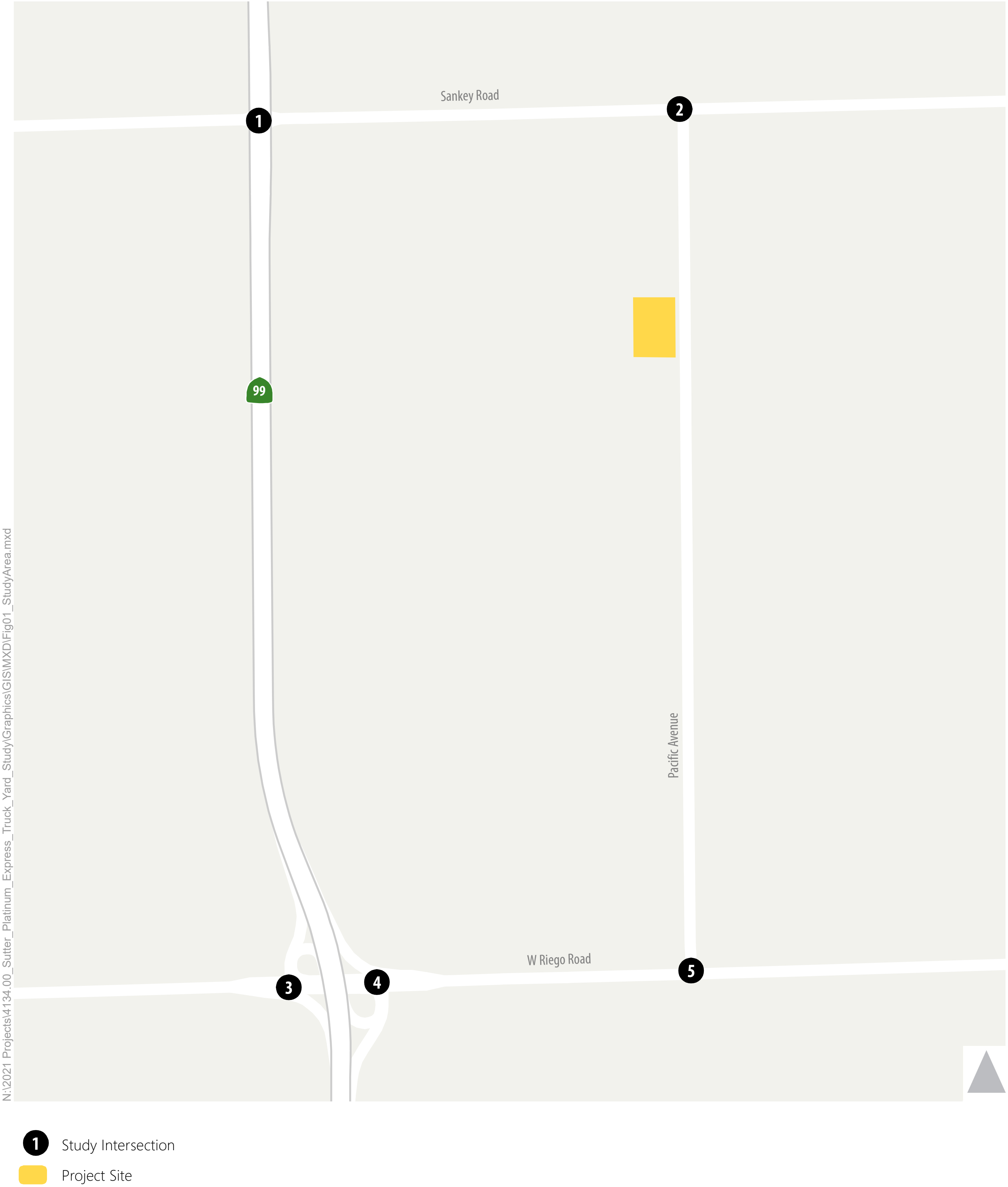

Figure 1

Study Area

Truck Routes

Within Sutter County, State Route 99, State Route 70, State Route 113, a portion of State Route 20, and Tudor Road east of State Route 113 have been designated as truck routes by Caltrans and are included in the National Network for Surface Transportation Assistance Act (STAA) of 1982. Posted signs within the study area indicate that STAA trucks are permitted on W. Riego Road between SR 99 and Pacific Avenue and on Pacific Avenue.

Sutter County's Code of Ordinances also establishes nine roadway segments within the unincorporated county as truck routes that "shall not be restricted in use for driving, operating, or towing by commercial vehicles with legal loads." Additionally, the Code of Ordinances establishes Railroad Avenue between Oswald Road and Oswald Avenue as having a 15-ton weight limit. None of the County truck or restricted routes are near the project.

The most recent data published on Caltrans' website is from 2020 and shows that SR 99 carries about 36,000 vehicles per day north of W. Riego Road. The data also shows that approximately 8.7 percent of daily vehicles are trucks (light or heavy).

Traffic Data Collection

New traffic counts were not collected in 2021 due to the ongoing effect of the COVID-19 pandemic on travel demand. Instead, per Sutter County staff direction, this traffic study relies on traffic data utilized in the Lakeside at Sutter Pointe project. Midweek AM (7:00 to 9:00) and PM (4:00 to 6:00) peak period traffic counts (including bikes, pedestrians, and heavy vehicles) were collected at all study intersections between January 2018 and November 2019. In addition, 24-hour roadway counts were collected on Sankey Road, W. Riego Road, and Pacific Avenue within the study area on August 29, 2019.

Figure 2 shows existing conditions lane configurations and traffic volumes for the five study intersections. In this study, the SR 99 intersections (i.e., at Sankey and at W. Riego Road ramp terminals) have AM and PM peak hours of 7:00 to 8:00 AM and 4:30 to 5:30 PM, respectively.

Level of Service Definitions

As previously stated, the *Transportation and Circulation* element of the Sutter County General Plan includes a policy for level of service (LOS). Although vehicle LOS analysis cannot be used for determining CEQA impacts, it is used in this study to evaluate consistency with General Plan policy and to identify potential improvement projects where LOS is deficient.

Each study facility was analyzed using the concept of LOS. LOS is a qualitative measure of traffic operating conditions whereby a letter grade, from A (representing free-flow vehicular traffic conditions with little to no congestion) to F (oversaturated conditions where traffic demand exceeds capacity resulting in long queues and delays), is assigned. These grades represent the perspective

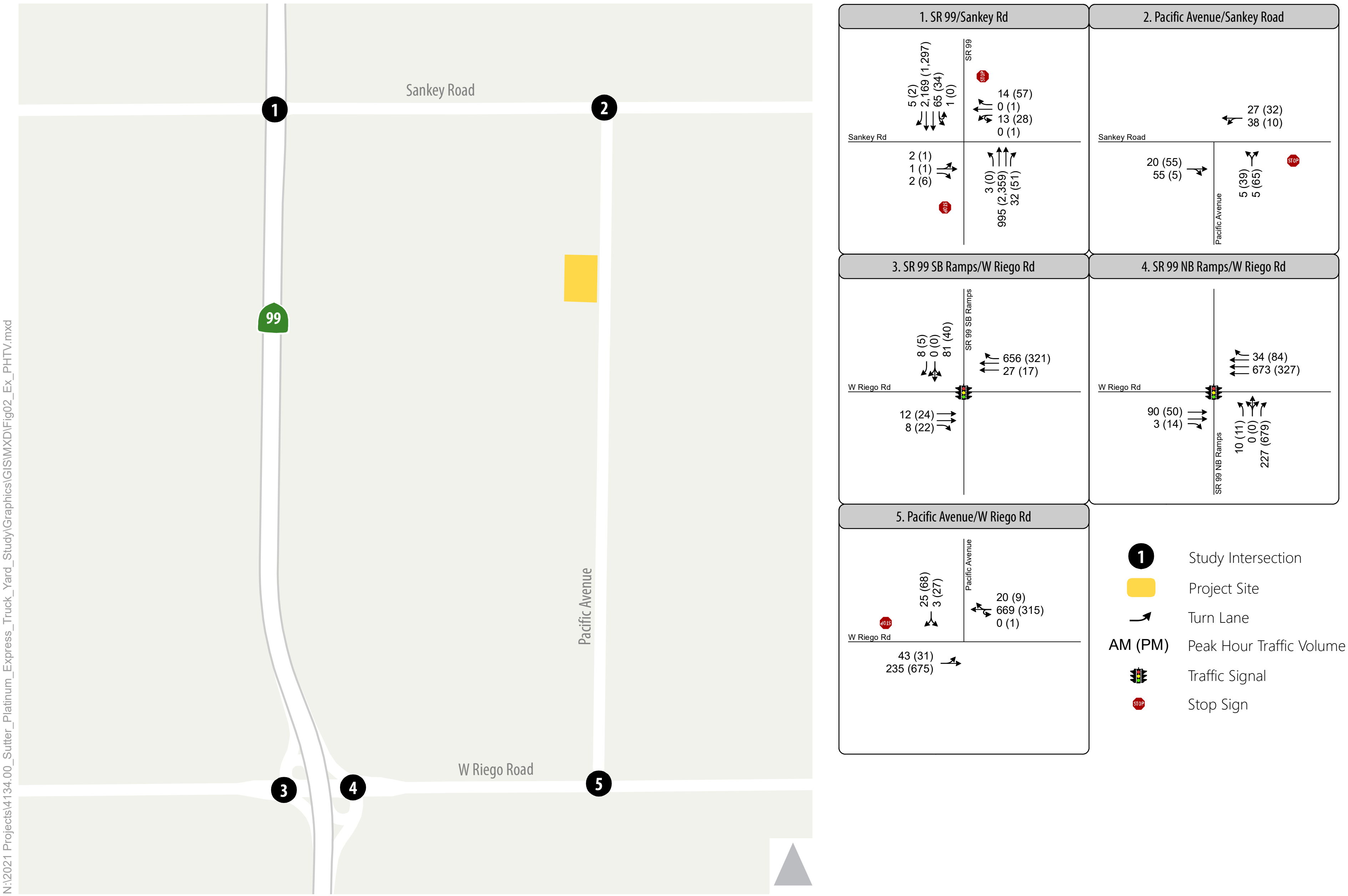

Figure 2

Peak Hour Traffic Volumes and Lane Configurations - Existing Conditions of drivers and are an indication of the comfort and convenience associated with driving. **Table 1** displays the delay range associated with each LOS category for signalized and unsignalized intersections as presented in the *Highway Capacity Manual 6th Edition* (Transportation Research Board, 2016). **Table 2** shows the LOS daily volume thresholds for various roadway facility types in Sutter County as used in the Sutter County General Plan.

Table 1: Level of Service Definitions – Intersections

Level of Service	Description (at Signalized Intersections)	Average Control Delay[1]	
		Signalized	Unsignalized
A	Volume-to-capacity ratio is low and either progression is exceptionally favorable or cycle length is very short. Most vehicles arrive during the green phase and travel through the intersection without stopping.	≤ 10	< 10.0
B	Volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.	>10 to 20	> 10.0 to 15.0
C	Progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 to 35	> 15.0 to 25.0
D	Volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35 to 55	> 25.0 to 35.0
E	Volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	>55 to 80	> 35.0 to 50.0
F	Volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80	> 50.0

Notes: [1] Average control delay presented in seconds per vehicle. Delay values are rounded to the nearest second and evaluated for LOS based on the above thresholds (i.e., 10 seconds per vehicle = LOS A)
Source: Highway Capacity Manual, 6th Edition (Transportation Research Board, 2016)

Table 2: Level of Service Criteria – Roadway Segments[1]

Jurisdiction	Facility Type	Number of Lanes & Classification	Daily Volume Threshold				
			LOS A	LOS B	LOS C	LOS D	LOS E
Sutter County	Rural Roadway	2 (2R)	-	-	7,200	12,200	20,800
	Urban Arterial	2 (2U)	-	-	13,170	14,800	16,460
		4 (4U)	-	-	26,340	29,640	32,930
	Expressway	4 (4E)	-	-	38,900	47,400	51,600

Notes: [1] Both number of lanes and daily volume thresholds are two-way totals.
Source: Sutter County General Plan, 1996; Fehr & Peers, 2008.

Intersection Operations

Intersection operations at the five study intersections were quantitatively analyzed under AM and PM peak hour conditions using the Synchro 11 software, which applies the analysis procedures contained in the *Highway Capacity Manual, 6th Edition*. Synchro's SimTraffic microsimulation module was used to analyze Sankey Road/SR 99 due to the intersection's unique lane configurations. **Table 3** displays the existing conditions peak hour intersection operations at the study intersections (refer to Appendix A for technical calculations). The operations analysis accounted for the interaction of automobiles, pedestrians, bicyclists, and heavy vehicles.

Table 3: Intersection Operations – Existing Conditions

Intersection	Traffic Control	Peak Hour	Existing Conditions	
			Delay[1]	LOS[1]
1. Sankey Road/State Route 99	SSSC	AM	**2 (41)**	**A (E)**
		PM	**3 (123)**	**A (F)**
2. Sankey Road/Pacific Avenue	SSSC	AM	3 (9)	A (A)
		PM	5 (10)	A (A)
3. W. Riego Road/State Route 99 SB Ramps	Signal	AM	8	A
		PM	7	A
4. W. Riego Road/State Route 99 NB Ramps	Signal	AM	5	A
		PM	7	A
5. W. Riego Road/Pacific Avenue	SSSC	AM	1 (15)	A (C)
		PM	2 (16)	A (C)

Notes: LOS = Level of Service. SSSC = Side-Street Stop Controlled. **Bold** indicates exceedance of Sutter County LOS policy.
[1] For signalized intersections, average delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay.
Source: Fehr & Peers, 2022

As shown in Table 3, Sankey Road/SR 99 is the only study intersection that operates below Sutter County's adopted LOS threshold under existing conditions. The highest-delay movement during the AM peak hour was the eastbound through, while the highest-delay movement during the PM peak hour was the westbound U-turn.

Table 4 shows the peak hour average maximum queue length for key movements at each study intersection. These queue estimates are based on ten microsimulation model runs using Synchro's SimTraffic microsimulation module.

Intersection 1 (Sankey Road/SR 99) has unique geometry such that certain vehicles (e.g., left turns from SR 99 or through movements on Sankey Road) require two stages to move through the intersection. Such vehicles complete their first movement by entering a 75-foot vehicle refuge area between the SR 99 northbound and southbound lanes, and they complete their second movement upon exiting the refuge area. Table 4 disaggregates key movements at Sankey Road/SR 99 to capture queue lengths within the refuge area.

As shown in Table 4, all average maximum queue values are less than the corresponding storage length under existing conditions, except for the eastbound left/through from the vehicle refuge area at the Sankey Road/SR 99 intersection. The microsimulation shows that vehicles fill the eastbound vehicle refuge area and cause upstream queuing on the SR 99 southbound left and Sankey Road eastbound through movements about 1% of the AM peak hour and 7% of the PM peak hour (average of ten microsimulation runs).

Table 4: Average Maximum Queue Lengths – Existing Conditions

Intersection	Movement	Storage Length (feet)	Average Maximum Queue[1] (feet)	
			AM Peak Hour	PM Peak Hour
1A. Sankey Road/State Route 99 (Southbound)	EB T	>1,000	25	25
	WB LT	75	25	25
	SB L	540	25	25
1B. Sankey Road/State Route 99 (Northbound)	EB LT	75	**75**[2]	**75**[2]
	WB T	>1,000	50	75
	NB L	535	25	25
2. Sankey Road/Pacific Avenue	EB TR	>1,000	25	25
	WB LT	>1,000	25	25
	NB LR	>1,000	50	75
3. W. Riego Road/State Route 99 Southbound Ramps	EB T	>1,000	25	25
	WB T	995	50	50
	SB LR	330	75	50
	SB R	>1,000	50	50
4. W. Riego Road/State Route 99 Northbound Ramps	EB T	995	75	75
	WB T	>1,000	175	175
	NB L	565	25	25
	NB LR	>1,000	100	200
	NB R	565	50	175

Table 4: Average Maximum Queue Lengths – Existing Conditions

Intersection	Movement	Storage Length (feet)	Average Maximum Queue[1] (feet)	
			AM Peak Hour	PM Peak Hour
5. W. Riego Road/Pacific Avenue	EB LT	>1,000	75	50
	WB TR	>1,000	25	25
	SB LR	>1,000	50	75

Notes: **Bold** indicates exceedance of storage length.
[1] Average maximum queue is based on an average of ten microsimulation runs using Synchro's SimTraffic microsimulation module.
[2] The microsimulation shows that vehicles fill the eastbound vehicle refuge area and cause upstream queuing on the the SR 99 southbound left and Sankey Road eastbound through movements about 1% of the AM peak hour and 7% of the PM peak hour (average of ten microsimulation runs).
Source: Fehr & Peers, 2022

Roadway Segment Operations

Study roadway segments were analyzed by comparing average daily traffic volume to daily volume thresholds specific to the facility type. The use of daily traffic volume for roadway segment operations analysis is the preferred methodology in Sutter County. **Table 5** shows existing daily traffic, LOS, and volume-to-capacity ratio for the four study roadway segments. As shown, all study roadway segments operate at LOS D or better.

Table 5: Roadway Segment Analysis – Existing Conditions

Roadway Segment	Existing Conditions			
	Lanes	Classification[1]	ADT	LOS/VC
1. Sankey Road – SR 99 to Pacific Avenue	2	2R	1,128	C / 0.05
2. Pacific Avenue – South of Sankey Road	2	2R	1,341	C / 0.06
3. Pacific Avenue – North of W. Riego Road	2	2R	1,185	C / 0.06
4. W. Riego Road – SR 99 to Pacific Avenue	2	2R	11,272	D / 0.54

Notes: ADT = average daily traffic. LOS = Level of Service. VC = volume-to-capacity ratio. **Bold** indicates exceedance of General Plan LOS policy.
[1] Classification codes are based on "Table 2: Level of Service Criteria – Roadway Segments".
Source: Fehr & Peers, 2022

Bicycle and Pedestrian Facilities

Currently, there are no bicycle or pedestrian facilities at the proposed project frontage. The only portion of the study area with pedestrian or bike facilities is the SR 99/W. Riego Road interchange, which contains about one-half mile of sidewalks and Class II bike lanes on both sides of W. Riego Road. In addition, marked crosswalks with pedestrian push buttons are provided at both SR 99/W. Riego Road ramp terminal intersections for pedestrians crossing the SR 99 off-ramps. However, the count data shows that pedestrian and bicycle volumes at these intersections are minimal during the AM and PM peak hours.

Travel Characteristics

Data Collection

The Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11th Edition* (2021) does not contain data for a land use category with characteristics similar to truck yard sites. Therefore, driveway counts at two sites similar to the proposed project were conducted to estimate the project's trip generation. The two sites, which are truck yards with truck/trailer repair shops, included the following: Sangha Truck & Trailer Repair in Yuba City and M&M Truck & Trailer Repair in West Sacramento. Driveway counts were collected over the course of 24 hours on Wednesday, January 12, 2022 (see Appendix A for count data).

The data shows that the peak hour of the truck yard would likely occur outside conventional morning and evening peak hours, between 9 AM and 4 PM. However, to determine potential off-site traffic impacts, this study focuses on an analysis of typical AM (7-9 AM) and PM (4-6 PM) peak hours, when traffic is highest on adjacent roadways.

Trip Generation

Table 6 shows the trip generation estimate of the proposed project. The trip generation is based on passenger vehicle and truck trip rates derived from the driveway count data. As shown in Table 6, the project is estimated to generate about 23 AM peak hour, 26 PM peak hour, and 424 daily vehicle trips.

Table 6: Trip Generation Estimate – Platinum Express Truck Yard

Land Use	Quantity	Vehicle Type	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Truck Yard with Truck/Trailer Repair Shop	7.08 Acres (Fenced)	Passenger Vehicles	13	3	16	9	14	23	291
		Trucks	3	4	7	2	1	3	133
		All	16	7	23	11	15	26	424

Notes: [1] Based on trip rates derived from driveway count data at two similar truck yard sites in Sutter and Yolo Counties. Both sites are truck yards with truck and trailer repair shops.
Source: Fehr & Peers, 2022

Trip Distribution

SACOG, as the Sacramento region's designated Metropolitan Planning Organization (MPO), develops and maintains the Sacramento Activity-Based Travel Simulation Model, or SACSIM19. This travel demand forecasting model is used for regional-scale policy analysis of land use and transportation plans, as well as for analysis of travel behavior changes.

A modified version of SACSIM19 was used to derive the trip distribution for the proposed project. **Figure 3** shows trip distribution percentages within the study area, disaggregated by vehicle type. As shown, all project truck trips would use Pacific Avenue and W. Riego Road to pass though the SR 99/W. Riego Road interchange, consistent with the marked STAA truck route. An estimated 88 percent of truck trips would travel south on SR 99 and the remaining 12 percent would travel north. Passenger car trips accessing southbound SR 99 would also use the W. Riego Road interchange, whereas passenger cars heading north would use the SR 99/Sankey Road intersection. The remaining passenger car trips would travel east on W. Riego Road (40 percent) or east on Sankey Road (4 percent). A nominal amount of project traffic (less than 1 percent) would travel west of SR 99 on Sankey Road or W. Riego Road.

Existing Plus Project Conditions

Intersection Operations

Existing Plus Project traffic volumes account for the addition of vehicle trips to the existing volumes, in accordance with the travel characteristics (i.e., trip generation and distribution) previously presented. **Figure 4** displays the resulting AM and PM peak hour study intersection traffic volumes under Existing Plus Project conditions. **Table 7** shows the Existing Plus Project peak hour intersection operations at the study intersections (refer to Appendix A for technical calculations).

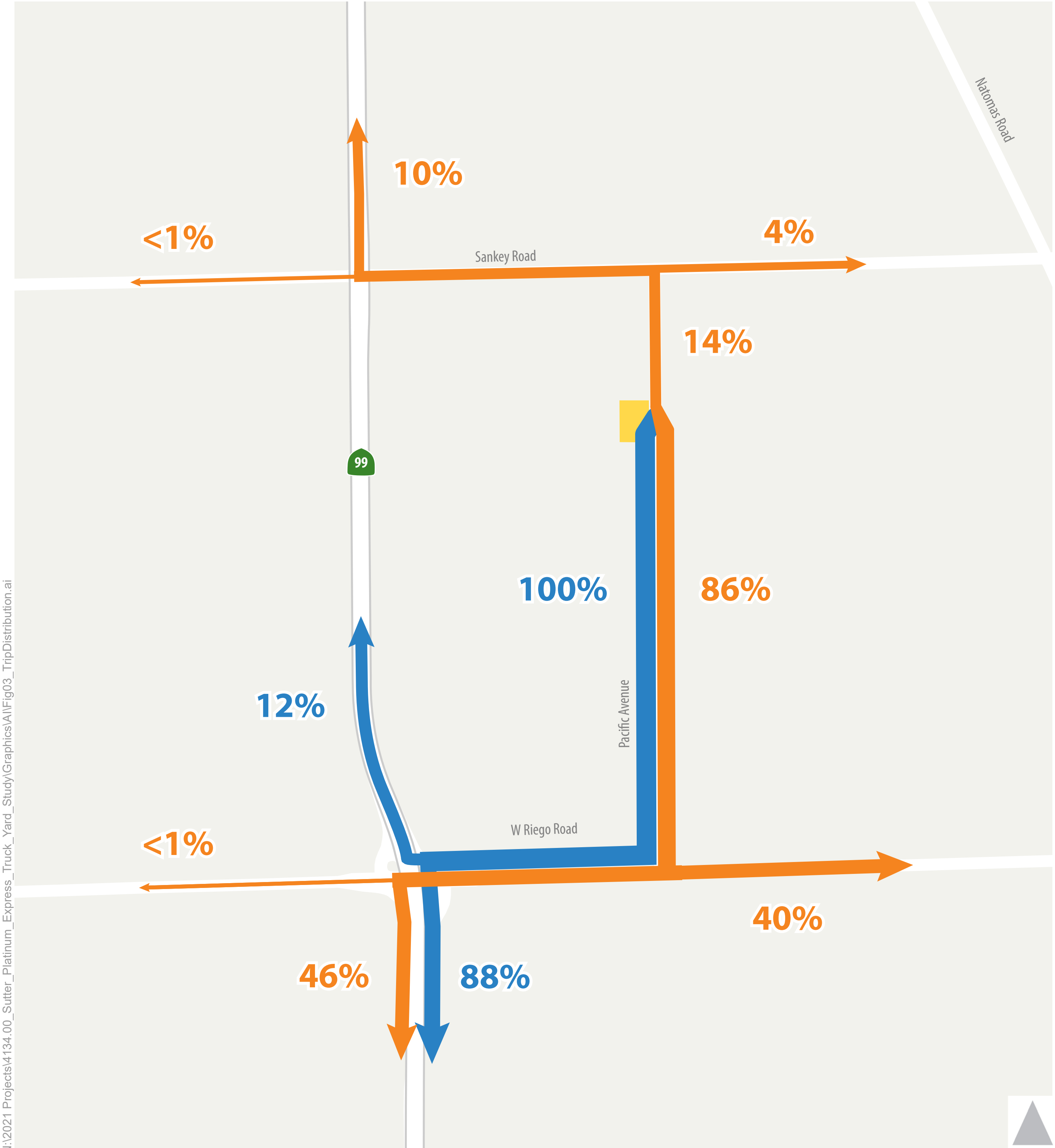

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Figure 3

Trip Distribution

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Figure 4

Peak Hour Traffic Volumes and Lane Configurations - Existing Plus Project Conditions

Table 7: Intersection Operations – Existing Plus Project Conditions

Intersection	Traffic Control	Peak Hour	Existing Conditions		Existing Plus Project Conditions	
			Delay[1]	LOS[1]	Delay[1]	LOS[1]
1. Sankey Road/State Route 99	SSSC	AM	**2 (41)**	**A (E)**	**2 (41)**	**A (E)**
		PM	**3 (123)**	**A (F)**	**3 (129)**	**A (F)**
2. Sankey Road/Pacific Avenue	SSSC	AM	3 (9)	A (A)	3 (9)	A (A)
		PM	5 (10)	A (A)	5 (10)	A (A)
3. W. Riego Road/State Route 99 SB Ramps	Signal	AM	8	A	8	A
		PM	7	A	7	A
4. W. Riego Road/State Route 99 NB Ramps	Signal	AM	5	A	5	A
		PM	7	A	7	A
5. W. Riego Road/Pacific Avenue	SSSC	AM	1 (15)	A (C)	1 (16)	A (C)
		PM	2 (16)	A (C)	2 (17)	A (C)

Notes: LOS = Level of Service. SSSC = Side-Street Stop Controlled. **Bold** indicates exceedance of Sutter County LOS policy.
[1] For signalized intersections, average delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay.
Source: Fehr & Peers, 2022

As shown in Table 7, the Sankey Road/SR 99 intersection operates below Sutter County's adopted LOS threshold under existing conditions and delay would be exacerbated by the proposed project during the PM peak hour. The deficient movement (LOS F) occurs from the side street.

Table 8 shows the Existing Plus Project conditions peak hour average maximum queue length for key movements at study intersections. These queue estimates are based on ten microsimulation runs using Synchro's SimTraffic microsimulation module. Like Table 4, Table 8 disaggregates key movements at Sankey Road/SR 99 to capture queue lengths within the refuge area.

As shown in Table 8, the proposed project would result in relatively minor changes in queuing. Under Existing Plus Project conditions, all average maximum queue values would be less than the corresponding storage length, except for the eastbound left/through from the vehicle refuge area at the Sankey Road/SR 99 intersection. The microsimulation (average of ten runs) shows that vehicles fill the eastbound vehicle refuge area and cause upstream queuing on the SR 99 southbound left and Sankey Road eastbound through movements about 1% of the AM peak hour and 12% of the PM peak hour (an increase from 7% under existing conditions). The project is forecasted to add one vehicle to the southbound left-turn movement during the AM and PM peak hours, which would contribute to the southbound left-turn vehicle queue. However, the vehicle queue would not exceed available storage or impact SR 99 operations.

Table 8: Average Maximum Queue Lengths – Existing Plus Project Conditions

Intersection	Movement	Storage Length (feet)	Average Maximum Queue[1] (feet)		Change Compared to Existing Conditions (feet)	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1A. Sankey Road/State Route 99 (Southbound)	EB T	>1,000	25	25	-	-
	WB LT	75	25	25	-	-
	SB L	540	25	25	-	-
1B. Sankey Road/State Route 99 (Northbound)	EB LT	75	**75**[2]	**75**[2]	**-**	**-**
	WB T	>1,000	50	75	-	-
	NB L	535	25	25	-	-
2. Sankey Road/Pacific Avenue	EB TR	>1,000	25	25	-	-
	WB LT	>1,000	25	25	-	-
	NB LR	>1,000	50	50	-	-25
3. W. Riego Road/State Route 99 Southbound Ramps	EB T	>1,000	25	25	-	-
	WB T	995	50	50	-	-
	SB LR	330	100	75	+25	+25
	SB R	>1,000	50	25	-	-25
4. W. Riego Road/State Route 99 Northbound Ramps	EB T	995	100	75	+25	-
	WB T	>1,000	225	150	+50	-25
	NB L	565	25	25	-	-
	NB LR	>1,000	125	200	+25	-
	NB R	565	50	175	-	-
5. W. Riego Road/Pacific Avenue	EB LT	>1,000	100	100	+25	+50
	WB TR	>1,000	25	25	-	-
	SB LR	>1,000	75	100	+25	+25

Notes: **Bold** indicates exceedance of storage length.

[1] Average maximum queue is based on an average of ten microsimulation runs using Synchro's SimTraffic microsimulation module.

[2] The microsimulation shows that vehicles fill the eastbound vehicle refuge area and cause upstream queuing on the SR 99 southbound left and Sankey Road eastbound through movements about 1% of the AM peak hour and 12% of the PM peak hour (average of ten microsimulation runs).

Source: Fehr & Peers, 2022

Roadway Segment Operations

Existing Plus Project conditions study roadway segment volumes were estimated by assigning the daily trip generation (Table 6) to the existing conditions roadway network using the developed trip distributions (Figure 3). The Existing Plus Project daily volumes were compared to daily volume thresholds specific to the facility type. **Table 9** shows Existing Plus Project daily traffic, LOS, and volume-to-capacity ratios for the 4 study roadway segments. As shown, the proposed project would result in minor increases to vehicle-to-capacity ratios, and all study roadway segments would operate at LOS D or better daily.

Table 9: Roadway Segment Analysis – Existing Plus Project Conditions

Roadway Segment	Lanes	Classification[1]	Existing Conditions		Existing Plus Project Conditions	
			ADT	LOS/VC	ADT	LOS/VC
1. Sankey Road – SR 99 to Pacific Avenue	2	2R	1,128	C / 0.05	1,169	C / 0.06
2. Pacific Avenue – South of Sankey Road	2	2R	1,341	C / 0.06	1,382	C / 0.07
3. Pacific Avenue – North of W. Riego Road	2	2R	1,185	C / 0.06	1,568	C / 0.08
4. W. Riego Road – SR 99 to Pacific Avenue	2	2R	11,272	D / 0.54	11,539	D / 0.55

Notes: ADT = average daily traffic. LOS = Level of Service. VC = volume-to-capacity ratio. **Bold** indicates exceedance of General Plan LOS policy.
[1] Classification codes are based on "Table 2: Level of Service Criteria – Roadway Segments".
Source: Fehr & Peers, 2022

Assessment of Potential Off-Site Impacts

Based on the intersection operations analysis, the following intersection currently operates below Sutter County's adopted LOS threshold under existing conditions. The delay at this intersection would be exacerbated by the proposed Platinum Express Truck Yard project.

- Sankey Road/SR 99 during the PM peak hour

Under Existing Plus Project conditions, the Sankey Road/SR 99 intersection does not meet the peak hour signal warrant due to insufficient volume on the minor street.

In the revised *Lakeside at Sutter Pointe: Impact Analysis* memorandum (Fehr & Peers, May 20, 2020), a LOS impact is also identified at Sankey Road/SR 99. The improvement measure for that impact requires installation of directional signing on Sankey Road (in advance of Pacific Avenue) and on Pacific Avenue (in advance of W. Riego Road) directing drivers to use Pacific Avenue to W. Riego Road to access southbound SR 99 and areas west of SR 99. Because the project's negative impact to the Sankey Road/SR 99 intersection is caused by adding traffic to the southbound left-turn movement, this improvement measure would not mitigate the proposed project's LOS impact.

Based on discussion with County staff, the following improvement measure is recommended:

- Condition the project such that all inbound and outbound traffic to and from SR 99 (or areas west of SR 99) are prohibited from using Sankey Road and, instead, use W. Riego Road and Pacific Avenue. This improvement measure would require the applicant to fully fund installation of required directional signing (on-site or off-site) and conversion of project driveways to be left-in and right-out only.

Table 10 shows that the proposed improvement measure would mitigate the Existing Plus Project conditions LOS impact and would nominally affect delay at the other study intersections.

Table 10: Intersection Operations – Existing Plus Project Conditions with Improvements

Intersection	Traffic Control	Peak Hour	Existing Plus Project Conditions Delay/LOS[1]			
			No Improvements		With Improvements	
1. Sankey Road/State Route 99	SSSC	AM	**2 (41)**	**A (E)**	**2 (41)**	**A (E)**
		PM	**3 (129)**	**A (F)**	**3 (123)**	**A (F)**
2. Sankey Road/Pacific Avenue	SSSC	AM	3 (9)	A (A)	3 (9)	A (A)
		PM	5 (10)	A (A)	5 (10)	A (A)
3. W. Riego Road/State Route 99 SB Ramps	Signal	AM	8	A	8	A
		PM	7	A	7	A
4. W. Riego Road/State Route 99 NB Ramps	Signal	AM	5	A	5	A
		PM	7	A	7	A
5. W. Riego Road/Pacific Avenue	SSSC	AM	1 (16)	A (C)	1 (16)	A (C)
		PM	2 (17)	A (C)	2 (17)	A (C)

Notes: LOS = Level of Service. SSSC = Side-Street Stop Controlled. **Bold** indicates exceedance of Sutter County LOS policy.
[1] For signalized intersections, average delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay.
Source: Fehr & Peers, 2022

Analysis of Project Access

Project access was analyzed to determine turn-lane, vehicle storage, and sight distance requirements. Vehicle and truck access at project driveways were evaluated, as were bicycle and pedestrian access to the project site. In addition, the project was evaluated for agreement with relevant Sutter County design and improvement standards.

Recommended Project Access

The need for separate ingress left-turn lanes and right-turn deceleration lanes are evaluated below. To properly evaluate worst-case scenarios, site-generated traffic is assumed to all use the same driveway, as opposed to splitting traffic between the two proposed driveways.

- Need for Left-Turn Lane on Pacific Avenue – AASHTO's *A Policy on Geometric Design of Highways and Streets* (7th Edition, 2018) includes guidance concerning the accommodation of left-turns at unsignalized intersections. The provision of left-turn lanes has been found to reduce crash rates from 20 to 65 percent. Left-turn facilities should be established on roadways where traffic volumes are high enough or crash histories are sufficient to warrant them. Table 9-25 and Figure 9-36 in AASHTO's *A Policy on Geometric Design of Highways and Streets* provide suggested left-turn treatment warrants based on results from benefit-cost evaluations for intersections on two-lane highways in rural areas.

  Inputs to the left-turn treatment warrant are the left-turn volume and the per lane volume on the major street. For the project, the left-turn volume entering the project during the AM peak hour is about 11 passenger cars and 3 trucks. The total volume on Pacific Avenue south of the project site is about 120 (88 northbound and 32 southbound), or 60 vehicles per hour per lane. Based on these volumes, a bypass lane is warranted.

  Currently, left-turn pockets are not provided on Pacific Avenue. Therefore, we reviewed the latest 6 years of collision records (2015-2020, inclusive) from the Statewide Integrated Traffic Records System (SWITRS) to identify if the lack of left-turn pockets at driveways on Pacific Avenue may be contributing to collisions. Based on the data, there were no recorded collisions on Pacific Avenue that resulted in injuries or fatalities that were attributed to left-turn movements. Note that the SWITRS database only includes injury collisions and does not include property damage only collisions. During the 6-year period, there was one reported collision on Pacific Avenue, which involved a vehicle hitting a fixed object.

  AASHTO's *A Policy on Geometric Design of Highways and Streets* states that the "volume-based guidelines or warrants presented below indicate situations where a left-turn lane may be desirable, not necessarily situations where a left-turn lane is definitely needed."

We defer to County staff to determine if a left-turn treatment is required at either project driveway.

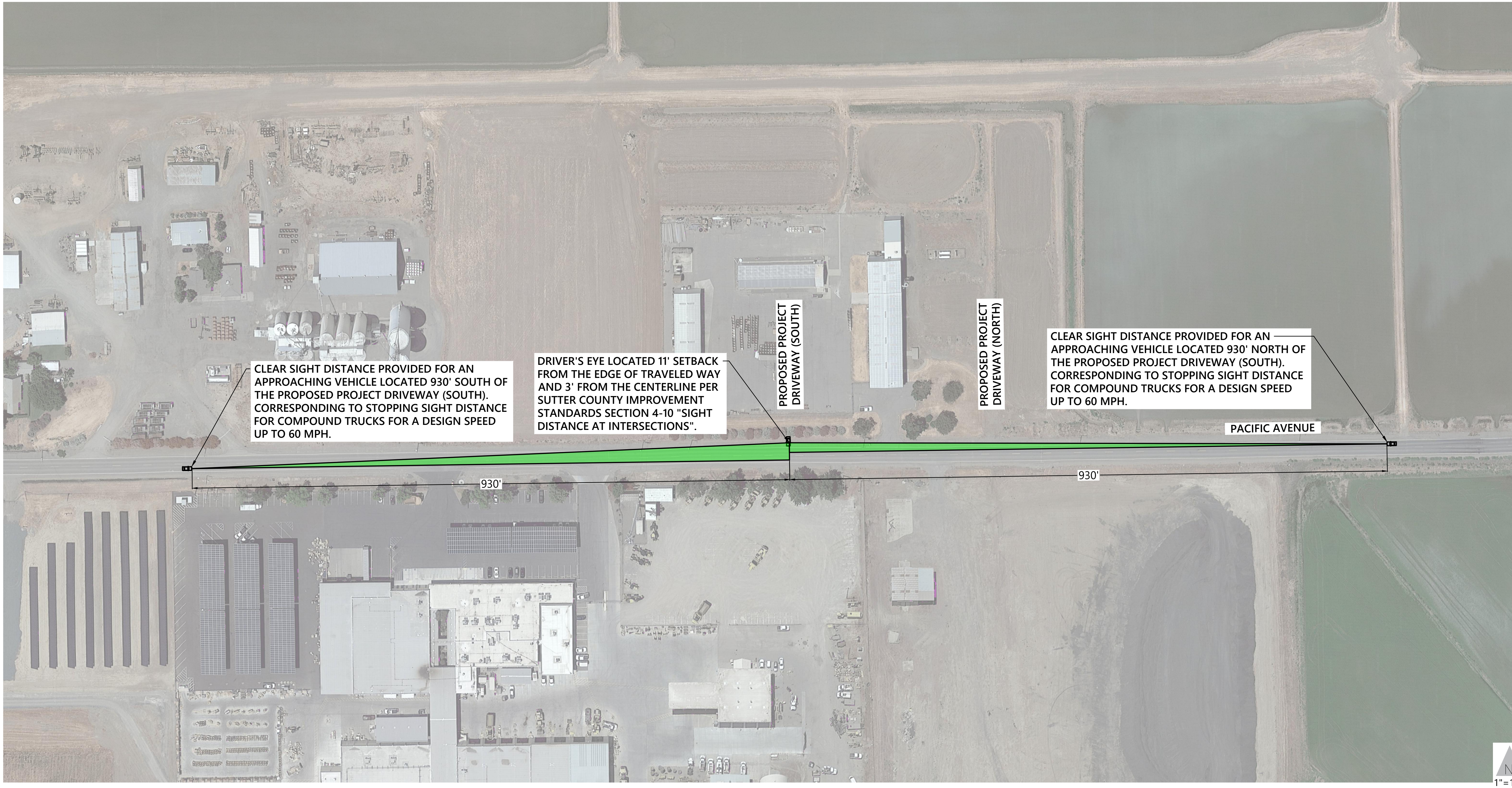
- Need for Right-Turn Tapers/Deceleration Lanes – The southbound right-turn from Pacific Avenue into the project site is expected to serve about 2 vehicles during the AM peak hour. The NCHRP's report for Project 3-72, "Synthesis on Right-Turn Deceleration Lanes on Urban and Suburban Arterials", refers to several studies addressing warrants for the installation of right-turn lanes, concluding that the "warrants are primarily based on a minimum right-turn volume that can be accommodated without significantly impacting through traffic on the approach." The worst-case scenario, when considering both the site generated trips and the roadway volumes, occurs during the AM peak hour. On Pacific Avenue north of the project, the Existing Plus Project southbound volume is 34 vehicles during the AM peak hour. Therefore, a right-turn deceleration lane is not needed on Pacific Avenue at the project driveway per Table 4 ("Summary of state design practice in providing right-turn lanes on rural highways") of the NCHRP report.

- Vehicle Storage Requirements at Platinum Driveway – The eastbound left- and right-turns from the Platinum Express truck yard driveway onto Pacific Avenue are expected to serve an equivalent of 17 passenger cars (using a storage requirement passenger-car equivalent for trucks of 3.0) during the PM peak hour. Based on the Existing Plus Project traffic volumes on Pacific Avenue, the maximum vehicle queue for the driveway is estimated to be 1 vehicle. The proposed throat depth of about 67 feet at the project driveways is adequate to accommodate the maximum queue. Overall, a shared outbound left- and right-turn lane at both driveways is adequate to accommodate the low egress volumes.

Sight Distance Evaluation

Sight distance analysis was performed at the proposed project driveways on Pacific Avenue. The Pacific Avenue northbound and southbound directions have posted speed limits of 55 MPH between Sankey Road and W. Riego Road. With side-street stop-controlled intersections one half mile north and one-and-a-half miles south of the project driveway, approaching traffic has adequate distance to accelerate to the full posted speed limit (55 MPH) prior to reaching the project driveways. Furthermore, consideration beyond the 500-foot requirement outlined in the Sutter County Street Improvement Standards (2010), Section 4-10, is required due to large heavy vehicle percentages on Pacific Avenue during the AM and PM peak hours.

Figure 5 and **Figure 6** show sight triangles from the driver's eye at each of the project driveways to approaching northbound and southbound vehicles on Pacific Avenue. The positioning distance of 930 feet in advance of the driveway was determined per provisions found in the *Highway Design Manual*, Section 405.1(2), and corresponds to stopping speeds of combination trucks at a



LEGEND

STOPPING SIGHT DISTANCE TRIANGLE - DESIGN OF VERTICAL ELEMENTS IN THIS AREA TO BE CONSISTENT WITH SUTTER COUNTY STANDARD DRAWING H-14.

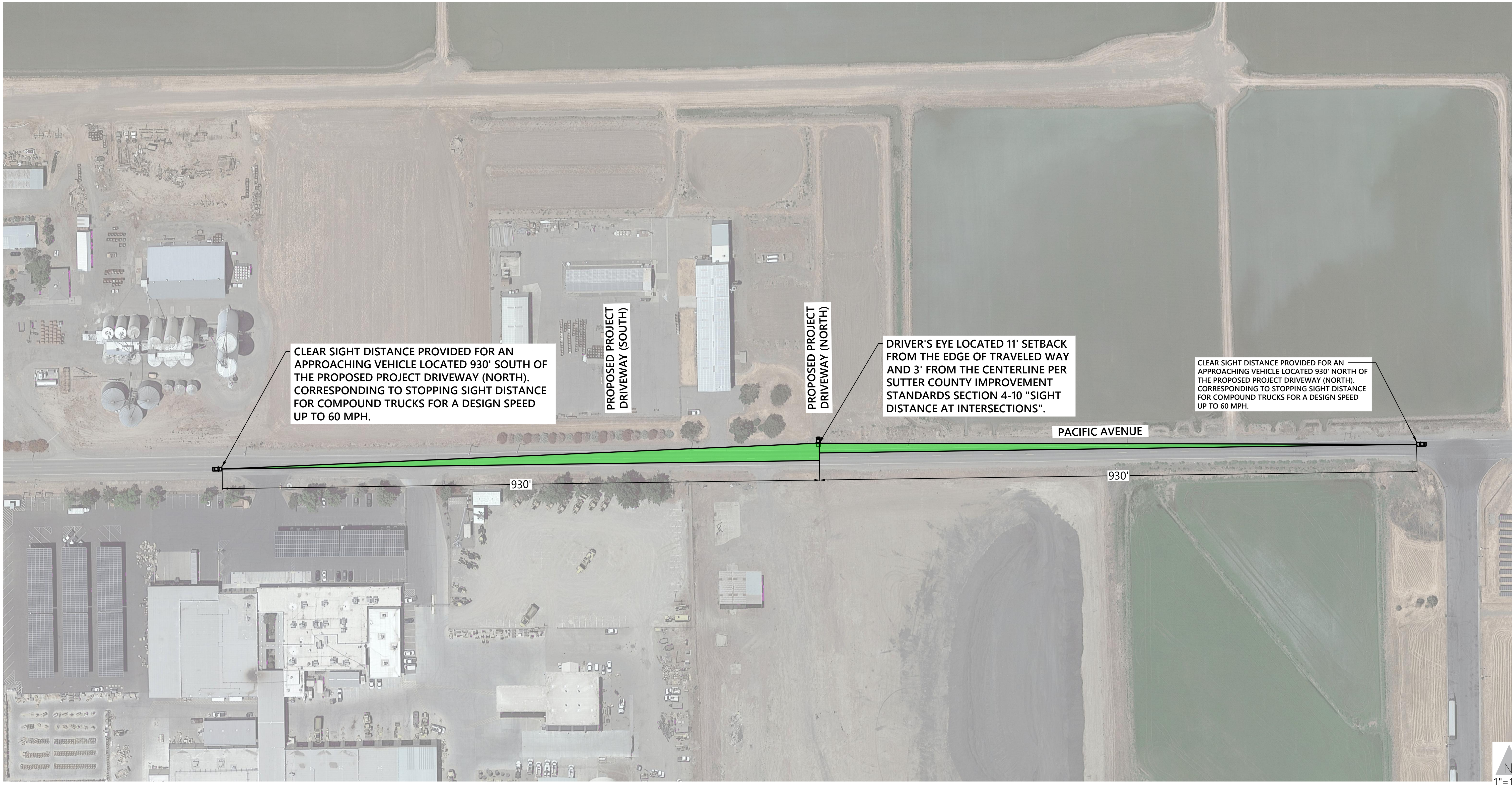
150 0 150 300

1" = 150' GRAPHIC SCALE

Figure 5

Stopping Sight Distance

Pacific Avenue and Proposed Project Driveway (South)



LEGEND

STOPPING SIGHT DISTANCE TRIANGLE - DESIGN OF VERTICAL ELEMENTS IN THIS AREA TO BE CONSISTENT WITH SUTTER COUNTY STANDARD DRAWING H-14.

150 0 150 300

1" = 150' GRAPHIC SCALE

Figure 6

Stopping Sight Distance

Pacific Avenue and Proposed Project Driveway (North) design speed of 55 MPH (per provisions in the Sutter County Street Improvement Standards, Section 4-10).

As shown, the sight triangles are clear of all existing and proposed vertical elements with no visibility obstructions. Therefore, the proposed project driveways maintain adequate sight distance to approaching vehicles under Existing Plus Project conditions.

Site Access and Circulation

Site access and site circulation evaluation was provided by the applicant in the project site plan dated February 10, 2022. That document shows that the site plan can accommodate the shown vehicles without encroachment.

Project Compliance with Relevant Design and Improvement Standards

Pacific Avenue between W. Riego Road and Sankey Road is classified as a rural local road in both the "Existing Functional Classification Circulation Diagram" and "Future Functional Classification Circulation Diagram" of the Sutter County General Plan. Pacific Avenue has 11-foot travel lanes, 1-foot paved shoulders, and 2-foot gravel shoulders in both directions, resulting in a total roadway width of 28 feet, traveled way width of 22 feet, and graded shoulder width of 3 feet on both sides of the road. The posted speed limit for northbound and southbound Pacific Avenue is 55 MPH, and the daily traffic is about 1,185 vehicles based on mid-week counts collected in August 2019 for the *Lakeside at Sutter Pointe* project. The existing cross section on Pacific Avenue is consistent with Sutter County Standard Drawing H-3 for a rural local road.

Pacific Avenue between W. Riego Road and Sankey Road is classified as a four-lane, divided urban minor arterial in Exhibit 6.2 ("Master Roadway Plan") of the *Sutter Pointe Specific Plan*. The proposed project driveways on Pacific Avenue are set back to provide future right-of-way for the 107-foot urban minor arterial (see Exhibit 6.11, "Four Lane Divided Arterials Section F-F", of the *Sutter Pointe Specific Plan*), providing compliance with Implementation Program M 2-B of the Sutter County General Plan. There are existing overhead utilities on the west side of the street within the ultimate 107-foot right-of-way.

Implementation Program M 2-E in the Sutter County General Plan is in place to "condition new development to finance and construct appropriate circulation improvements necessary to mitigate a project's transportation impacts including pedestrian and bicycle mobility, safety, and level of service-related impacts." In addition, M 2-E is in place to "collect the fair share cost of required circulation improvements through established fees, and/or construction estimates of needed improvements, as appropriate, where construction is not practical at the time of development". The County will work with the applicant to condition the project consistent with Implementation Program M 2-E.

The Platinum Express Truck Yard would generate STAA truck trips. Pacific Avenue is a designated truck route serving SR 99, which is a Caltrans designated truck route. Section 4.3 of AASHTO's *A Policy on Geometric Design of Highways and Streets* (7th Edition, 2018) states that a "12-ft [3.6-m] lane provides desirable clearances between large commercial vehicles traveling in opposite directions on two-lane, two-way highways in rural areas." Further guidance on appropriate lane widths for local rural roads is provided in Section 5.2.2.1 ("Width of Roadway"). Table 5-5 ("Minimum Width of Traveled Way and Shoulders for Two-Lane Local Roads in Rural Areas") lists the minimum traveled way and shoulder widths for local rural roads based on design speed and average daily traffic (ADT). For a design speed of 55 MPH and ADT between 400 and 2,000 vehicles per day, the minimum traveled way width is 22 feet and the minimum graded shoulder width is 3 feet on each side. Based on this criteria, Pacific Avenue does not need to be widened to accept project truck traffic between the project site and SR 99. Due to substantial truck volumes present on Pacific Avenue, AASHTO recommends widening the traveled way to 24 feet if the ADT on Pacific Avenue increases above 2,000 vehicles per day.

Pedestrian and Bicycle Access

Pedestrian and bicycle access were evaluated near the proposed project based on existing and planned facilities. Currently, there are no bicycle or pedestrian facilities on Pacific Avenue between W. Riego Road and Sankey Road. Per the *Sutter Pointe Specific* Plan, this portion of Pacific Avenue is planned as a future 4-lane divided minor arterial, with 5-foot Class II bike lanes and 6-foot sidewalks buffered from the bike lanes by a planter strip and/or on-street parking. The Class II bike lanes will connect to planned Class I bike facilities along W. Riego Road and the current alignment of Sankey Road. The *Sutter Pointe Specific Plan* also contains several policies related to providing secure bicycle parking, showers, clothing lockers, on-site pedestrian and bicycle circulation, and connection to adjacent sidewalks and bike lanes.

Implementation Program M 5-C in the Sutter County General Plan is in place to "condition new development to construct bicycle and pedestrian lanes/trails and associated facilities in and supporting the development project in accordance to the County's Bikeway and Pedestrian Master Plan and County improvement standards; and to the extent possible, connect these facilities to existing and planned bicycle lanes/trails".

The County will work with the applicant to condition the project consistent with the *Sutter Pointe Specific Plan* and Implementation Program M 5-C.

Vehicle Miles Traveled Transportation Assessment

Significance Criteria

To aid in SB 743 implementation, OPR released a Technical Advisory on Evaluation Transportation Impacts in CEQA in December 2018. The Technical Advisory provides advice and recommendations to CEQA lead agencies on how to implement SB 743 changes. This includes technical recommendations regarding the assessment of VMT, thresholds of significance, VMT mitigation measures, and screening thresholds for certain land use projects. Lead agencies may consider and use recommendations in the Technical Advisory at their discretion. Sutter County has not yet adopted a VMT significance threshold and methodology for CEQA VMT transportation assessments. Therefore, this VMT transportation assessment relies on the State of California's guidance in the Technical Advisory.

Based on input from County staff, the proposed project's application is a staff-level ministerial design review that would not require approval by the County Board of Supervisors. As a result, CEQA does not apply, as CEQA is only triggered by discretionary actions. Therefore, the VMT assessment presented in this memorandum is for informational purposes, and the County has discretion on any conditions of approval related to VMT impacts.

In the absence of an applicable Sutter County VMT significance threshold, for the purposes of this study and in accordance with the Technical Advisory guidelines, a VMT-related impact would be considered significant if implementation of the proposed Platinum Express Truck Yard project would trigger the following condition:

- The proposed project exceeds a level of 15 percent below existing regional VMT per employee (i.e., exceeds 18.1 vehicle-miles per employee)

VMT Assessment

To support SB 743 implementation, SACOG has developed screening maps using outputs from the 2016 base year model run of the SACSIM travel demand model for the 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). SACSIM 2016 is activity/tour based and is designed to estimate individuals' daily travel, accounting for land use, transportation, and demographics that influence peoples' travel behaviors. SACOG's Workplace-based VMT per job map uses "HEX" geography, wherein average workplace VMT per job is calculated for each HEX by tallying all VMT generated by work-place tours and subtours at a workplace in the HEX and dividing by the total number of jobs available for residents inside the SACOG region in that HEX. It should be noted that this screening map does not account for VMT traveled outside the SACOG region.

The proposed project is strictly commercial, which means SACOG's HEX map is applicable. According to the map, the proposed project site is captured in a HEX containing other industrial businesses where the average workplace VMT per job is 38.1. SACOG's HEX methodology estimates that the regional average workplace VMT per job is 21.3. This means that the proposed project is in an area where average VMT per worker is greater than 150 percent of the regional average and would exceed the VMT impact threshold of 18.1.

For comparison, M&M Truck & Trailer Repair in West Sacramento and Sangha Truck & Trailer Repair in Sutter County—the two driveway data collection sites used in this project—reside within HEXs with workplace VMT per job of 25.2 and 22.4, respectively. Both these HEXs would exceed the VMT impact threshold of 18.1 as well.

Based on the project's location in a low-density rural area, its clientele (primarily truck operators), and the fact that similar sites are located within HEXs exceeding the VMT impact threshold, we conclude that the proposed Platinum Express Truck Yard project has a significant impact to VMT.

Recommended Improvements

Improvements that would reduce VMT must result in one of two outcomes—a decrease in average trip length or a decrease in trip generation. The proposed project's remote location and specialized land use type would limit the range and effectiveness of potential VMT mitigation options, particularly those that are commonly applicable in urban or suburban settings (e.g., co-locating complementary land uses, providing subsidized transit passes, improving pedestrian/bicycle networks, managing parking supply, etc.). An improvement is nonetheless presented below. As mentioned previously, CEQA does not apply and the County ultimately has discretion on any conditions of approval related to the proposed project's VMT impact.

Recommended Improvement 1: Transportation Demand Management (TDM) Program. The project applicant would develop and implement a TDM program to reduce the number of daily vehicle trips made to the project site and would submit the TDM Program to Sutter County for review and approval. The TDM Program would identify trip reduction strategies as well as mechanisms for funding and overseeing the delivery of trip reduction programs and strategies. The TDM Program would be designed to achieve the following trip reduction:

- Reduce workplace VMT per job to a level 15 percent below the regional average

Trip reduction strategies may include, but are not limited to, the following.

- Develop an employer-led program that considers:
  - Carpooling encouragement
  - Ride-matching assistance
  - Part-time or contract transportation coordinator
  - Vanpool assistance
- Make ad hoc payment towards active transportation projects, which reduce VMT, elsewhere in Sutter County

Given the project's land use type and its location in rural Sutter County, the effectiveness of TDM measures to reduce project-generated VMT to a level 15 percent below regional average VMT per employee is not certain. For this reason, we conclude that implementation of Recommended Improvement 1 would not reduce workplace VMT per job to a less-than-significant level.

APPENDIX A:

TECHNICAL CALCULATIONS

Prepared by National Data & Surveying Services

In & Out

Location: Galveston St & 618 Galveston St Dwy
City: West Sacramento

Date: 1/12/2022
Day: Wednesday

TIME	PV						Buses						2 Axle						3 Axle+					
	IN			OUT			IN			OUT			IN			OUT			IN			OUT		
	NL	SR	WT	EL	ET	ER	NL	SR	WT	EL	ET	ER	NL	SR	WT	EL	ET	ER	NL	SR	WT	EL	ET	ER
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
6:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0
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9:00 AM	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
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9:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
9:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
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10:30 AM	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
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11:15 AM	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
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10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	*46*	*29*	*0*	*20*	*1*	*50*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*1*	*0*	*2*	*0*	*2*	*25*	*8*	*0*	*8*	*0*	*23*

Prepared by National Data & Surveying Services

In & Out

Location: Sangha Truck and Trailer Repair West Dwy & Oswald Rd
City: Yuba City

Date: 1/12/2022
Day: Wednesday

TIME	PV				Buses				2 Axle				3 Axle+			
	IN		OUT		IN		OUT		IN		OUT		IN		OUT	
	EL	WR	SL	SR	EL	WR	SL	SR	EL	WR	SL	SR	EL	WR	SL	SR
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	1	0	0	1	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	0
7:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	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	0	0	0	0
8:30 AM	1	0	0	1	0	0	0	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
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
10:00 AM	1	1	0	1	0	0	0	0	0	0	0	0	1	0	0	2
10:15 AM	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1
10:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
12:45 PM	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0
2:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
3:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4:30 PM	0	0	0	1	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
5:00 PM	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
5:30 PM	0	0	0	1	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	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:30 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:15 PM	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Totals	***25***	***4***	***2***	***34***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***16***	***1***	***1***	***12***

Prepared by National Data & Surveying Services

In & Out

Location: Sangha Truck and Trailer Repair East Dwy & Oswald Rd
City: Yuba City

Date: 1/12/2022
Day: Wednesday

TIME	PV				Buses				2 Axle				3 Axle+			
	IN		OUT		IN		OUT		IN		OUT		IN		OUT	
	EL	WR	SL	SR	EL	WR	SL	SR	EL	WR	SL	SR	EL	WR	SL	SR
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	3	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	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	2	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1
10:30 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	2	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
11:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1
11:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1
1:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1:45 PM	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0
3:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0

4:30 PM	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	0	1	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	1	0	0	0
5:15 PM	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	2	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	0	0	0	0
6:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0
6:45 PM	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:00 PM	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	***41***	***18***	***24***	***34***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***18***	***0***	***2***	***12***

Existing Conditions - Sankey Rd/SR 99

AM Peak Hour

Int 2								
Movement	EBT	EBR	WBU	WBL	WBT	SBL	SBT	SBR
Volume	3	2	0	13	3	66	2169	5
Delay	31.7	0	0	2.9	0	2.6	2.2	1.6

Int 222							
Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Volume	3	66	13	14	3	995	32
Delay	0	8.9	13.6	1.1	0.1	1.1	1.9

COMBINED															
Movement	SBU	SBL	SBT	SBR	EBL	EBT	EBR	NBU	NBL	NBT	NBR	WBL	WBT	WBR	WBU
Volume	1	65	2169	5	2	1	2	0	3	995	32	13	0	14	0
Delay	2.6	11.5	2.2	1.6	31.7	40.6	0	0	0.1	1.1	1.9	16.5	0	1.1	0

Delay/veh	**2.1**
Delay/veh (worse mvmnt)	**40.6**

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	20	55	38	27	5	5
Future Vol, veh/h	20	55	38	27	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	24	66	46	33	6	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	90	0	182	57
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	125	-
Critical Hdwy	-	-	4.23	-	6.53	6.33
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	-	-	2.317	-	3.617	3.417
Pot Cap-1 Maneuver	-	-	1439	-	783	979
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	874	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1439	-	757	979
Mov Cap-2 Maneuver	-	-	-	-	757	-
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	845	-

Approach	EB		WB		NB	
HCM Control Delay, s	0		4.4		9.3	
HCM LOS					A	

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	854	-	-	1439	-
HCM Lane V/C Ratio	0.014	-	-	0.032	-
HCM Control Delay (s)	9.3	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	12	8	0	27	656	0	0	0	81	0	8
Future Volume (veh/h)	0	12	8	0	27	656	0	0	0	81	0	8
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
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	1781	1781	0	1781	1781				1781	1781	1781
Adj Flow Rate, veh/h	0	13	0	0	29	0				86	0	0
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	8	8	0	8	8				8	8	8
Cap, veh/h	0	1221		0	1221					220	0	196
Arrive On Green	0.00	0.36	0.00	0.00	0.36	0.00				0.13	0.00	0.00
Sat Flow, veh/h	0	3474	1510	0	3474	1510				1697	0	1510
Grp Volume(v), veh/h	0	13	0	0	29	0				86	0	0
Grp Sat Flow(s),veh/h/ln	0	1692	1510	0	1692	1510				1697	0	1510
Q Serve(g_s), s	0.0	0.1	0.0	0.0	0.1	0.0				1.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.1	0.0	0.0	0.1	0.0				1.0	0.0	0.0
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1221		0	1221					220	0	196
V/C Ratio(X)	0.00	0.01		0.00	0.02					0.39	0.00	0.00
Avail Cap(c_a), veh/h	0	3510		0	2747					2065	0	1838
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	0.00
Uniform Delay (d), s/veh	0.0	4.5	0.0	0.0	4.6	0.0				8.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				1.1	0.0	0.0
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	0.0	0.0	0.0	0.0	0.0				0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.6	0.0	0.0	4.6	0.0				10.0	0.0	0.0
LnGrp LOS	A	A		A	A					A	A	A
Approach Vol, veh/h		13	A		29	A					86	
Approach Delay, s/veh		4.6			4.6						10.0	
Approach LOS		A			A						A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		14.2		8.0		14.2						
Change Period (Y+Rc), s		* 6.2		5.1		* 6.2						
Max Green Setting (Gmax), s		* 23		27.0		* 18						
Max Q Clear Time (g_c+I1), s		2.1		3.0		2.1						
Green Ext Time (p_c), s		0.0		0.4		0.1						

Intersection Summary		
HCM 6th Ctrl Delay		8.2
HCM 6th LOS		A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	90	3	0	673	34	10	0	227	0	0	0
Future Volume (veh/h)	0	90	3	0	673	34	10	0	227	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
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	1781	1781	0	1781	1781	1781	1781	1781			
Adj Flow Rate, veh/h	0	96	0	0	716	0	7	0	42			
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	8	8	0	8	8	8	8	8			
Cap, veh/h	0	1695		0	2436		135	0	241			
Arrive On Green	0.00	0.50	0.00	0.00	0.50	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	0	3474	1510	0	5024	1510	1697	0	3019			
Grp Volume(v), veh/h	0	96	0	0	716	0	7	0	42			
Grp Sat Flow(s),veh/h/ln	0	1692	1510	0	1621	1510	1697	0	1510			
Q Serve(g_s), s	0.0	0.4	0.0	0.0	2.3	0.0	0.1	0.0	0.3			
Cycle Q Clear(g_c), s	0.0	0.4	0.0	0.0	2.3	0.0	0.1	0.0	0.3			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1695		0	2436		135	0	241			
V/C Ratio(X)	0.00	0.06		0.00	0.29		0.05	0.00	0.17			
Avail Cap(c_a), veh/h	0	4648		0	6679		1700	0	3026			
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	3.5	0.0	0.0	3.9	0.0	11.5	0.0	11.6			
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.1	0.0	0.2	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	3.5	0.0	0.0	4.1	0.0	11.7	0.0	12.1			
LnGrp LOS	A	A		A	A		B	A	B			
Approach Vol, veh/h		96	A		716	A		49				
Approach Delay, s/veh		3.5			4.1			12.0				
Approach LOS		A			A			B				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		19.7				19.7		7.2				
Change Period (Y+Rc), s		* 6.2				* 6.2		5.1				
Max Green Setting (Gmax), s		* 37				* 37		27.0				
Max Q Clear Time (g_c+I1), s		2.4				4.3		2.3				
Green Ext Time (p_c), s		0.9				9.2		0.2				

Intersection Summary			
HCM 6th Ctrl Delay			4.5
HCM 6th LOS			A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	235	669	20	3	25
Future Vol, veh/h	43	235	669	20	3	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	7	7	7	7	7	7
Mvmt Flow	46	250	712	21	3	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	733	0	-	0	1065	723
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	342	-
Critical Hdwy	4.17	-	-	-	6.47	6.27
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	2.263	-	-	-	3.563	3.363
Pot Cap-1 Maneuver	849	-	-	-	241	418
Stage 1	-	-	-	-	472	-
Stage 2	-	-	-	-	708	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	849	-	-	-	226	418
Mov Cap-2 Maneuver	-	-	-	-	226	-
Stage 1	-	-	-	-	442	-
Stage 2	-	-	-	-	708	-

Approach	EB		WB		SB	
HCM Control Delay, s	1.5		0		15.2	
HCM LOS					C	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	849	-	-	-	383
HCM Lane V/C Ratio	0.054	-	-	-	0.078
HCM Control Delay (s)	9.5	0	-	-	15.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Intersection: 1A: SR 99 SB & Sankey Rd

Movement	EB	WB	SB
Directions Served	T	LT	L
Maximum Queue (ft)	24	21	14
Average Queue (ft)	4	6	2
95th Queue (ft)	20	28	18
Link Distance (ft)	518	77	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			540
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1B: SR 99 NB & Sankey Rd

Movement	EB	WB
Directions Served	LT	T
Maximum Queue (ft)	67	41
Average Queue (ft)	40	13
95th Queue (ft)	76	43
Link Distance (ft)	77	289
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	1	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1

Intersection: 2: Pacific Avenue & Sankey Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	12	28
Average Queue (ft)	2	7
95th Queue (ft)	15	27
Link Distance (ft)	869	463
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: SR 99 SB Ramps & W Riego Rd

Movement	EB	WB	WB	WB	SB	SB
Directions Served	T	T	T	R	LTR	R
Maximum Queue (ft)	19	36	6	2	64	40
Average Queue (ft)	3	11	1	0	38	8
95th Queue (ft)	15	38	9	4	71	34
Link Distance (ft)	329	993	993	993		1483
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)					330	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: SR 99 NB Ramps & W Riego Rd

Movement	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	L	LTR	R
Maximum Queue (ft)	45	70	24	82	173	10	94	44
Average Queue (ft)	19	33	6	30	103	2	60	19
95th Queue (ft)	54	77	24	83	173	20	96	49
Link Distance (ft)	993	993	471	471	471		926	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)						570		570
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: W Riego Rd & Pacific Avenue

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	64	43
Average Queue (ft)	28	21
95th Queue (ft)	72	47
Link Distance (ft)	354	388
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Existing Conditions - Sankey Rd/SR 99

PM Peak Hour

Int 2

Movement	EBT	EBR	WBU	WBL	WBT	SBL	SBT	SBR
Volume	2	6	1	28	1	34	1297	2
Delay	10.2	1	0	2.5	0	4.7	0.8	0.5

Int 222

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Volume	1	36	30	57	0	2359	51
Delay	0	63.6	59.5	1.8	0	2.1	1.6

COMBINED

Movement	SBU	SBL	SBT	SBR	EBL	EBT	EBR	NBU	NBL	NBT	NBR	WBL	WBT	WBR	WBU
Volume	0	34	1297	2	1	1	6	0	0	2359	51	28	1	57	1
Delay	4.7	68.3	0.8	0.5	10.2	73.8	1	2.5	0	2.1	1.6	62	59.5	1.8	123.1

Delay/veh	**2.7**
Delay/veh (worse mvmnt)	**123.1**

Intersection						
Int Delay, s/veh	5.2					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	5	10	32	39	65
Future Vol, veh/h	55	5	10	32	39	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	6	13	42	51	84

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	77	0	142	74
Stage 1	-	-	-	-	74	-
Stage 2	-	-	-	-	68	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1522	-	851	988
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	955	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1522	-	843	988
Mov Cap-2 Maneuver	-	-	-	-	843	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	946	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	928	-	-	1522	-
HCM Lane V/C Ratio	0.146	-	-	0.009	-
HCM Control Delay (s)	9.5	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	24	22	0	17	321	0	0	0	40	0	5
Future Volume (veh/h)	0	24	22	0	17	321	0	0	0	40	0	5
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
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	1841	1841	0	1841	1841				1841	1841	1841
Adj Flow Rate, veh/h	0	27	0	0	19	0				44	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	4	4	0	4	4				4	4	4
Cap, veh/h	0	1340		0	1340					132	0	118
Arrive On Green	0.00	0.38	0.00	0.00	0.38	0.00				0.08	0.00	0.00
Sat Flow, veh/h	0	3589	1560	0	3589	1560				1753	0	1560
Grp Volume(v), veh/h	0	27	0	0	19	0				44	0	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	0	1749	1560				1753	0	1560
Q Serve(g_s), s	0.0	0.1	0.0	0.0	0.1	0.0				0.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.1	0.0	0.0	0.1	0.0				0.5	0.0	0.0
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1340		0	1340					132	0	118
V/C Ratio(X)	0.00	0.02		0.00	0.01					0.33	0.00	0.00
Avail Cap(c_a), veh/h	0	3853		0	3015					2267	0	2017
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	0.00
Uniform Delay (d), s/veh	0.0	4.0	0.0	0.0	4.0	0.0				9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				1.5	0.0	0.0
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	0.0	0.0	0.0	0.0	0.0				0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.0	0.0	0.0	4.0	0.0				10.6	0.0	0.0
LnGrp LOS	A	A		A	A					B	A	A
Approach Vol, veh/h		27	A		19	A					44	
Approach Delay, s/veh		4.0			4.0						10.6	
Approach LOS		A			A						B	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		14.2		6.7		14.2						
Change Period (Y+Rc), s		* 6.2		5.1		* 6.2						
Max Green Setting (Gmax), s		* 23		27.0		* 18						
Max Q Clear Time (g_c+I1), s		2.1		2.5		2.1						
Green Ext Time (p_c), s		0.1		0.2		0.0						

Intersection Summary			
HCM 6th Ctrl Delay			7.2
HCM 6th LOS			A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	50	14	0	327	84	11	0	679	0	0	0
Future Volume (veh/h)	0	50	14	0	327	84	11	0	679	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
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	1841	1841	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	0	56	0	0	363	0	8	0	173			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	4	4	0	4	4	4	4	4			
Cap, veh/h	0	1113		0	1599		360	0	641			
Arrive On Green	0.00	0.32	0.00	0.00	0.32	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	0	3589	1560	0	5191	1560	1753	0	3120			
Grp Volume(v), veh/h	0	56	0	0	363	0	8	0	173			
Grp Sat Flow(s),veh/h/ln	0	1749	1560	0	1675	1560	1753	0	1560			
Q Serve(g_s), s	0.0	0.3	0.0	0.0	1.3	0.0	0.1	0.0	1.1			
Cycle Q Clear(g_c), s	0.0	0.3	0.0	0.0	1.3	0.0	0.1	0.0	1.1			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1113		0	1599		360	0	641			
V/C Ratio(X)	0.00	0.05		0.00	0.23		0.02	0.00	0.27			
Avail Cap(c_a), veh/h	0	5454		0	7837		1995	0	3550			
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	5.6	0.0	0.0	5.9	0.0	7.5	0.0	7.9			
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.3			
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	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.6	0.0	0.0	6.1	0.0	7.6	0.0	8.2			
LnGrp LOS	A	A		A	A		A	A	A			
Approach Vol, veh/h		56	A		363	A		181				
Approach Delay, s/veh		5.6			6.1			8.2				
Approach LOS		A			A			A				

Timer - Assigned Phs		2				6		8	
Phs Duration (G+Y+Rc), s		13.7				13.7		10.0	
Change Period (Y+Rc), s		* 6.2				* 6.2		5.1	
Max Green Setting (Gmax), s		* 37				* 37		27.0	
Max Q Clear Time (g_c+I1), s		2.3				3.3		3.1	
Green Ext Time (p_c), s		0.5				4.3		1.0	

Intersection Summary	
HCM 6th Ctrl Delay	6.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	31	675	1	315	9	27	68
Future Vol, veh/h	31	675	1	315	9	27	68
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	-	-	-	-	-	0	-
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96
Heavy Vehicles, %	5	5	5	5	5	5	5
Mvmt Flow	32	703	1	328	9	28	71

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	337	0	-	-	0	1100	333
Stage 1	-	-	-	-	-	333	-
Stage 2	-	-	-	-	-	767	-
Critical Hdwy	4.15	-	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1206	-	-	-	-	232	702
Stage 1	-	-	-	-	-	719	-
Stage 2	-	-	-	-	-	453	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	1206	-	-	-	-	222	702
Mov Cap-2 Maneuver	-	-	-	-	-	222	-
Stage 1	-	-	-	-	-	687	-
Stage 2	-	-	-	-	-	453	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4		15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1206	-	-	-	435
HCM Lane V/C Ratio	0.027	-	-	-	0.227
HCM Control Delay (s)	8.1	0	-	-	15.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Intersection: 1A: SR 99 SB & Sankey Rd

Movement	EB	WB	SB
Directions Served	T	ULT	L
Maximum Queue (ft)	18	23	14
Average Queue (ft)	3	4	2
95th Queue (ft)	17	23	14
Link Distance (ft)	518	77	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			540
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1B: SR 99 NB & Sankey Rd

Movement	EB	WB	WB
Directions Served	LT	T	R
Maximum Queue (ft)	70	64	25
Average Queue (ft)	38	34	4
95th Queue (ft)	81	74	37
Link Distance (ft)	77	289	
Upstream Blk Time (%)	7		
Queuing Penalty (veh)	2		
Storage Bay Dist (ft)			100
Storage Blk Time (%)		0	0
Queuing Penalty (veh)		0	0

Network Summary

Network wide Queuing Penalty: 3

Intersection: 2: Pacific Avenue & Sankey Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	5	55
Average Queue (ft)	1	36
95th Queue (ft)	7	56
Link Distance (ft)	864	439
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: SB 99 SB Slip On-Ramp/SR 99 SB Ramps & W Riego Rd

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	T	LTR	R
Maximum Queue (ft)	12	17	32	21	50	26
Average Queue (ft)	2	4	6	5	28	8
95th Queue (ft)	13	16	28	23	57	30
Link Distance (ft)	329	329	993	993		1483
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)					330	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: SR 99 NB Ramps/SR 99 NB Slip On-Ramp & W Riego Rd

Movement	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	L	LTR	R
Maximum Queue (ft)	31	54	15	65	152	15	195	160
Average Queue (ft)	11	24	3	25	89	2	118	66
95th Queue (ft)	37	59	14	62	156	18	199	161
Link Distance (ft)	993	993	471	471	471		926	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)						570		570
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: W Riego Rd & Pacific Avenue

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	43	68
Average Queue (ft)	11	39
95th Queue (ft)	46	69
Link Distance (ft)	354	400
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Existing Plus Project Conditions - Sankey Rd/SR 99

AM Peak Hour

Int 2

Movement	EBT	EBR	WBU	WBL	WBT	SBL	SBT	SBR
Volume	3	2	0	13	3	67	2169	5
Delay	31.7	0	0	2.9	0	2.7	2.2	1.8

Int 222

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Volume	3	67	13	14	3	995	32
Delay	0	9.3	13.6	1.1	0.1	1.1	1.9

COMBINED

Movement	SBU	SBL	SBT	SBR	EBL	EBT	EBR	NBU	NBL	NBT	NBR	WBL	WBT	WBR	WBU
Volume	1	66	2169	5	2	1	2	0	3	995	32	13	0	14	0
Delay	2.7	12	2.2	1.8	31.7	41	0	0	0.1	1.1	1.9	16.5	0	1.1	0

Delay/veh	**2.1**
Delay/veh (worse mvmnt)	**41.0**

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	20	56	39	27	5	5
Future Vol, veh/h	20	56	39	27	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	24	67	47	33	6	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	91	0	185	58
Stage 1	-	-	-	-	58	-
Stage 2	-	-	-	-	127	-
Critical Hdwy	-	-	4.23	-	6.53	6.33
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	-	-	2.317	-	3.617	3.417
Pot Cap-1 Maneuver	-	-	1437	-	780	978
Stage 1	-	-	-	-	937	-
Stage 2	-	-	-	-	872	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1437	-	754	978
Mov Cap-2 Maneuver	-	-	-	-	754	-
Stage 1	-	-	-	-	937	-
Stage 2	-	-	-	-	843	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.5	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	852	-	-	1437	-
HCM Lane V/C Ratio	0.014	-	-	0.033	-
HCM Control Delay (s)	9.3	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱					✥	↱
Traffic Volume (veh/h)	0	12	8	0	27	662	0	0	0	81	0	8
Future Volume (veh/h)	0	12	8	0	27	662	0	0	0	81	0	8
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
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	1781	1781	0	1781	1767				1781	1781	1781
Adj Flow Rate, veh/h	0	13	0	0	29	0				86	0	0
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	8	8	0	8	9				8	8	8
Cap, veh/h	0	1221		0	1221					220	0	196
Arrive On Green	0.00	0.36	0.00	0.00	0.36	0.00				0.13	0.00	0.00
Sat Flow, veh/h	0	3474	1510	0	3474	1497				1697	0	1510
Grp Volume(v), veh/h	0	13	0	0	29	0				86	0	0
Grp Sat Flow(s),veh/h/ln	0	1692	1510	0	1692	1497				1697	0	1510
Q Serve(g_s), s	0.0	0.1	0.0	0.0	0.1	0.0				1.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.1	0.0	0.0	0.1	0.0				1.0	0.0	0.0
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1221		0	1221					220	0	196
V/C Ratio(X)	0.00	0.01		0.00	0.02					0.39	0.00	0.00
Avail Cap(c_a), veh/h	0	3510		0	2747					2065	0	1838
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	0.00
Uniform Delay (d), s/veh	0.0	4.5	0.0	0.0	4.6	0.0				8.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				1.1	0.0	0.0
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	0.0	0.0	0.0	0.0	0.0				0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.6	0.0	0.0	4.6	0.0				10.0	0.0	0.0
LnGrp LOS	A	A		A	A					A	A	A
Approach Vol, veh/h		13	A		29	A					86	
Approach Delay, s/veh		4.6			4.6						10.0	
Approach LOS		A			A						A	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		14.2		8.0		14.2						
Change Period (Y+Rc), s		* 6.2		5.1		* 6.2						
Max Green Setting (Gmax), s		* 23		27.0		* 18						
Max Q Clear Time (g_c+I1), s		2.1		3.0		2.1						
Green Ext Time (p_c), s		0.0		0.4		0.1						
Intersection Summary												
HCM 6th Ctrl Delay			8.2									
HCM 6th LOS			A									

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	90	3	0	679	34	10	0	236	0	0	0
Future Volume (veh/h)	0	90	3	0	679	34	10	0	236	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
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	1781	1781	0	1767	1781	1781	1781	1767			
Adj Flow Rate, veh/h	0	96	0	0	722	0	7	0	43			
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	8	8	0	9	8	8	8	9			
Cap, veh/h	0	1701		0	2424		137	0	243			
Arrive On Green	0.00	0.50	0.00	0.00	0.50	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	0	3474	1510	0	4982	1510	1697	0	2994			
Grp Volume(v), veh/h	0	96	0	0	722	0	7	0	43			
Grp Sat Flow(s),veh/h/ln	0	1692	1510	0	1608	1510	1697	0	1497			
Q Serve(g_s), s	0.0	0.4	0.0	0.0	2.4	0.0	0.1	0.0	0.4			
Cycle Q Clear(g_c), s	0.0	0.4	0.0	0.0	2.4	0.0	0.1	0.0	0.4			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1701		0	2424		137	0	243			
V/C Ratio(X)	0.00	0.06		0.00	0.30		0.05	0.00	0.18			
Avail Cap(c_a), veh/h	0	4615		0	6575		1688	0	2979			
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	3.5	0.0	0.0	3.9	0.0	11.5	0.0	11.6			
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.1	0.0	0.2	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	3.5	0.0	0.0	4.1	0.0	11.7	0.0	12.1			
LnGrp LOS	A	A		A	A		B	A	B			
Approach Vol, veh/h		96	A		722	A		50				
Approach Delay, s/veh		3.5			4.1			12.1				
Approach LOS		A			A			B				

Timer - Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		19.8				19.8		7.3
Change Period (Y+Rc), s		* 6.2				* 6.2		5.1
Max Green Setting (Gmax), s		* 37				* 37		27.0
Max Q Clear Time (g_c+I1), s		2.4				4.4		2.4
Green Ext Time (p_c), s		0.9				9.3		0.2

Intersection Summary	
HCM 6th Ctrl Delay	4.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	52	235	669	25	4	31
Future Vol, veh/h	52	235	669	25	4	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	12	7	7	6	5	19
Mvmt Flow	55	250	712	27	4	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	739	0	-	0	1086	726
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	360	-
Critical Hdwy	4.22	-	-	-	6.45	6.39
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.308	-	-	-	3.545	3.471
Pot Cap-1 Maneuver	824	-	-	-	236	398
Stage 1	-	-	-	-	474	-
Stage 2	-	-	-	-	699	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	824	-	-	-	218	398
Mov Cap-2 Maneuver	-	-	-	-	218	-
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	699	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	16
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	824	-	-	-	364
HCM Lane V/C Ratio	0.067	-	-	-	0.102
HCM Control Delay (s)	9.7	0	-	-	16
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Intersection: 1A: SR 99 SB & Sankey Rd

Movement	EB	WB	SB
Directions Served	T	LT	L
Maximum Queue (ft)	24	21	14
Average Queue (ft)	4	6	2
95th Queue (ft)	20	28	18
Link Distance (ft)	518	77	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			540
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1B: SR 99 NB & Sankey Rd

Movement	EB	WB
Directions Served	LT	T
Maximum Queue (ft)	67	41
Average Queue (ft)	41	13
95th Queue (ft)	76	43
Link Distance (ft)	77	289
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	1	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1

Intersection: 2: Pacific Avenue & Sankey Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	20	32
Average Queue (ft)	3	10
95th Queue (ft)	19	35
Link Distance (ft)	869	463
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: SR 99 SB Ramps & W Riego Rd

Movement	EB	WB	WB	SB	SB
Directions Served	T	T	T	LTR	R
Maximum Queue (ft)	15	36	6	79	36
Average Queue (ft)	2	10	1	44	10
95th Queue (ft)	12	38	11	85	36
Link Distance (ft)	329	993	993		1483
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				330	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: SR 99 NB Ramps & W Riego Rd

Movement	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	L	LTR	R
Maximum Queue (ft)	55	79	18	127	204	6	102	47
Average Queue (ft)	19	35	5	45	117	1	64	18
95th Queue (ft)	57	86	17	120	206	10	104	50
Link Distance (ft)	993	993	471	471	471		926	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)						570		570
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: W Riego Rd & Pacific Avenue

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	96	52
Average Queue (ft)	31	27
95th Queue (ft)	84	57
Link Distance (ft)	354	388
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Existing Plus Project Conditions - Sankey Rd/SR 99

PM Peak Hour

Int 2

Movement	EBT	EBR	WBU	WBL	WBT	SBL	SBT	SBR
Volume	2	6	1	28	1	35	1297	2
Delay	10.1	1	0	2.6	0	19.7	0.8	0.5

Int 222

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Volume	1	37	30	58	0	2359	51
Delay	0	67.3	61.9	1.8	0	2.1	1.6

COMBINED

Movement	SBU	SBL	SBT	SBR	EBL	EBT	EBR	NBU	NBL	NBT	NBR	WBL	WBT	WBR	WBU
Volume	0	35	1297	2	1	1	6	0	0	2359	51	28	1	58	1
Delay	19.7	87	0.8	0.5	10.1	77.4	1	2.6	0	2.1	1.6	64.5	61.9	1.8	129.2

Delay/veh	**2.9**
Delay/veh (worse mvmnt)	**129.2**

Intersection	
Int Delay, s/veh	5.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	6	10	32	40	66
Future Vol, veh/h	55	6	10	32	40	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	8	13	42	52	86

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	79	0	143	75
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	68	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1519	-	850	986
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	955	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1519	-	842	986
Mov Cap-2 Maneuver	-	-	-	-	842	-
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	946	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	926	-	-	1519	-
HCM Lane V/C Ratio	0.149	-	-	0.009	-
HCM Control Delay (s)	9.6	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	24	22	0	17	328	0	0	0	40	0	5
Future Volume (veh/h)	0	24	22	0	17	328	0	0	0	40	0	5
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
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	1841	1841	0	1841	1841				1841	1841	1841
Adj Flow Rate, veh/h	0	27	0	0	19	0				44	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	4	4	0	4	4				4	4	4
Cap, veh/h	0	1340		0	1340					132	0	118
Arrive On Green	0.00	0.38	0.00	0.00	0.38	0.00				0.08	0.00	0.00
Sat Flow, veh/h	0	3589	1560	0	3589	1560				1753	0	1560
Grp Volume(v), veh/h	0	27	0	0	19	0				44	0	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	0	1749	1560				1753	0	1560
Q Serve(g_s), s	0.0	0.1	0.0	0.0	0.1	0.0				0.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.1	0.0	0.0	0.1	0.0				0.5	0.0	0.0
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1340		0	1340					132	0	118
V/C Ratio(X)	0.00	0.02		0.00	0.01					0.33	0.00	0.00
Avail Cap(c_a), veh/h	0	3853		0	3015					2267	0	2017
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	0.00
Uniform Delay (d), s/veh	0.0	4.0	0.0	0.0	4.0	0.0				9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				1.5	0.0	0.0
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	0.0	0.0	0.0	0.0	0.0				0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.0	0.0	0.0	4.0	0.0				10.6	0.0	0.0
LnGrp LOS	A	A		A	A					B	A	A
Approach Vol, veh/h		27	A		19	A					44	
Approach Delay, s/veh		4.0			4.0						10.6	
Approach LOS		A			A						B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		14.2		6.7		14.2						
Change Period (Y+Rc), s		* 6.2		5.1		* 6.2						
Max Green Setting (Gmax), s		* 23		27.0		* 18						
Max Q Clear Time (g_c+I1), s		2.1		2.5		2.1						
Green Ext Time (p_c), s		0.1		0.2		0.0						
Intersection Summary												
HCM 6th Ctrl Delay			7.2									
HCM 6th LOS			A									

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	50	14	0	334	84	11	0	685	0	0	0
Future Volume (veh/h)	0	50	14	0	334	84	11	0	685	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
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	1841	1841	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	0	56	0	0	371	0	8	0	173			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	4	4	0	4	4	4	4	4			
Cap, veh/h	0	1126		0	1617		359	0	639			
Arrive On Green	0.00	0.32	0.00	0.00	0.32	0.00	0.20	0.00	0.20			
Sat Flow, veh/h	0	3589	1560	0	5191	1560	1753	0	3120			
Grp Volume(v), veh/h	0	56	0	0	371	0	8	0	173			
Grp Sat Flow(s),veh/h/ln	0	1749	1560	0	1675	1560	1753	0	1560			
Q Serve(g_s), s	0.0	0.3	0.0	0.0	1.3	0.0	0.1	0.0	1.1			
Cycle Q Clear(g_c), s	0.0	0.3	0.0	0.0	1.3	0.0	0.1	0.0	1.1			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1126		0	1617		359	0	639			
V/C Ratio(X)	0.00	0.05		0.00	0.23		0.02	0.00	0.27			
Avail Cap(c_a), veh/h	0	5420		0	7787		1982	0	3528			
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	5.6	0.0	0.0	5.9	0.0	7.6	0.0	8.0			
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.3			
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	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.6	0.0	0.0	6.1	0.0	7.6	0.0	8.3			
LnGrp LOS	A	A		A	A		A	A	A			
Approach Vol, veh/h		56	A		371	A		181				
Approach Delay, s/veh		5.6			6.1			8.3				
Approach LOS		A			A			A				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		13.9				13.9		10.0				
Change Period (Y+Rc), s		* 6.2				* 6.2		5.1				
Max Green Setting (Gmax), s		* 37				* 37		27.0				
Max Q Clear Time (g_c+I1), s		2.3				3.3		3.1				
Green Ext Time (p_c), s		0.5				4.4		1.0				

Intersection Summary		
HCM 6th Ctrl Delay		6.7
HCM 6th LOS		A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection							
Int Delay, s/veh	1.8						

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	37	675	1	315	13	33	75
Future Vol, veh/h	37	675	1	315	13	33	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	-	-	-	-	-	0	-
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96
Heavy Vehicles, %	10	5	5	5	3	4	6
Mvmt Flow	39	703	1	328	14	34	78

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	342	0	-	-	0	1116	335
Stage 1	-	-	-	-	-	335	-
Stage 2	-	-	-	-	-	781	-
Critical Hdwy	4.2	-	-	-	-	6.44	6.26
Critical Hdwy Stg 1	-	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	-	5.44	-
Follow-up Hdwy	2.29	-	-	-	-	3.536	3.354
Pot Cap-1 Maneuver	1174	-	-	-	-	228	698
Stage 1	-	-	-	-	-	720	-
Stage 2	-	-	-	-	-	448	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	1174	-	-	-	-	215	698
Mov Cap-2 Maneuver	-	-	-	-	-	215	-
Stage 1	-	-	-	-	-	680	-
Stage 2	-	-	-	-	-	448	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4		16.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1174	-	-	-	414
HCM Lane V/C Ratio	0.033	-	-	-	0.272
HCM Control Delay (s)	8.2	0	-	-	16.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.1

Intersection: 1A: SR 99 SB & Sankey Rd

Movement	EB	WB	SB
Directions Served	T	ULT	L
Maximum Queue (ft)	18	23	24
Average Queue (ft)	3	4	8
95th Queue (ft)	16	25	48
Link Distance (ft)	518	77	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			540
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1B: SR 99 NB & Sankey Rd

Movement	EB	WB	WB
Directions Served	LT	T	R
Maximum Queue (ft)	70	64	25
Average Queue (ft)	39	34	4
95th Queue (ft)	83	73	37
Link Distance (ft)	77	289	
Upstream Blk Time (%)	12		
Queuing Penalty (veh)	4		
Storage Bay Dist (ft)			100
Storage Blk Time (%)		0	0
Queuing Penalty (veh)		0	0

Network Summary

Network wide Queuing Penalty: 5

Intersection: 2: Pacific Avenue & Sankey Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	2	50
Average Queue (ft)	0	36
95th Queue (ft)	5	56
Link Distance (ft)	864	439
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: SB 99 SB Slip On-Ramp/SR 99 SB Ramps & W Riego Rd

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	T	LTR	R
Maximum Queue (ft)	15	17	28	17	54	20
Average Queue (ft)	3	6	6	2	26	5
95th Queue (ft)	14	20	25	16	61	22
Link Distance (ft)	329	329	993	993		1483
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)					330	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: SR 99 NB Ramps/SR 99 NB Slip On-Ramp & W Riego Rd

Movement	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	L	LTR	R
Maximum Queue (ft)	37	56	19	83	142	16	184	155
Average Queue (ft)	10	25	4	32	94	2	120	68
95th Queue (ft)	36	63	17	81	153	16	192	152
Link Distance (ft)	993	993	471	471	471		926	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)						570		570
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: W Riego Rd & Pacific Avenue

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	76	77
Average Queue (ft)	18	47
95th Queue (ft)	71	80
Link Distance (ft)	354	400
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Attachment B

Air Quality and Greenhouse Gas Emissions Calculations & Health Risk Assessment

ESA

Platinum Trucking - Offsite Operational Dust Emissions

PROJECT DETAILS

Conversions

Tons	Pounds
1.00	2000.00
Year	Days
1.00	365.00

Construction Schedule

Phase	Start Date	End Date	Work Days
Demo	6/1/2022	6/15/2022	13.00
Site Prep	6/16/2022	6/20/2022	4.00
Grading	6/21/2022	7/1/2022	10.00
Paving	7/5/2022	7/7/2022	3.00
Arch Coating	7/11/2022	7/15/2022	5.00
Total			35.00

Note: FRAQMD Thresholds of Significance are AVERAGE ppd for NOx and ROG, but MAXIMUM ppd for PM10

CONSTRUCTION EMISSIONS

Annual and Average Daily Emissions

Unmitigated

Unmitigated Criteria Pollutant Emissions (tons)

	ROG	NOx	PM10	PM2.5
Demo On-Site (CalEEMod)	0.01	0.08	0.01	0.00
Site Prep On-Site (CalEEMod)	0.00	0.03	0.00	0.00
Grading On-Site (CalEEMod)	0.01	0.10	0.01	0.00
Paving On-Site (CalEEMod)	0.01	0.02	0.00	0.00
Arch Coating On-Site (CalEEMod)	0.13	0.01	0.00	0.00
Hauling, Vendor, and Worker Fugitive	--	--	0.01	0.01
Hauling, Vendor, and Worker Exhaust (EMFAC)	0.00	0.03	0.00	0.00
Total (tons)	0.16	0.26	0.04	0.02

Greenhouse Gas Emissions

	CO2e
Demo On-Site (CalEEMod)	12.67
Site Prep On-Site (CalEEMod)	4.04
Grading On-Site (CalEEMod)	14.74
Paving On-Site (CalEEMod)	3.24
Arch Coating On-Site (CalEEMod)	1.56
Hauling, Vendor, and Worker Exhaust(EMFAC2021)	18.40
Total (tons)	54.65

Unmitigated Criteria Pollutant Emissions (Average Pounds Per Day)

	ROG	NOx	PM10	PM2.5
Total (average ppd)	9.21	14.75	2.04	1.17

Mitigated

Mitigated Criteria Pollutant Emissions (tons)

	ROG	NOx	PM10	PM2.5
Demo On-Site (CalEEMod)	0.01	0.08	0.00	0.00
Site Prep On-Site (CalEEMod)	0.00	0.03	0.00	0.00
Grading On-Site (CalEEMod)	0.01	0.10	0.01	0.00
Paving On-Site (CalEEMod)	0.01	0.02	0.00	0.00
Arch Coating On-Site (CalEEMod)	0.13	0.01	0.00	0.00
Hauling, Vendor, and Worker Fugitive	--	--	0.01	0.01
Hauling, Vendor, and Worker Exhaust (EMFAC)	0.00	0.03	0.00	0.00
Total (tons)	0.16	0.26	0.03	0.02

Greenhouse Gas Emissions

	CO2e
Demo On-Site (CalEEMod)	12.67
Site Prep On-Site (CalEEMod)	4.04
Grading On-Site (CalEEMod)	14.74
Paving On-Site (CalEEMod)	3.24
Arch Coating On-Site (CalEEMod)	1.56
Hauling, Vendor, and Worker Exhaust (EMFAC2021)	18.40
Total (tons)	54.65

Mitigated Criteria Pollutant Emissions (Average Pounds Per Day)

	ROG	NOx	PM10	PM2.5
Total (average ppd)	9.21	14.75	1.65	1.13

Maximum Daily

Unmitigated

Unmitigated Criteria Pollutant Emissions (maximum daily pounds per day) SUMMER

	ROG	NOx	PM10	PM2.5
Demo On-Site (CalEEMod)	1.21	12.39	0.88	0.56
Site Prep On-Site (CalEEMod)	1.25	12.88	1.63	0.64
Grading On-Site (CalEEMod)	1.81	19.47	2.42	0.92
Paving On-Site (CalEEMod)	8.54	12.31	0.65	0.60
Arch Coating On-Site (CalEEMod)	50.87	3.57	0.20	0.19

Unmitigated Criteria Pollutant Emissions (maximum daily pounds per day) WINTER

	ROG	NOx	PM10	PM2.5
Demo On-Site (CalEEMod)	1.21	12.39	0.88	0.56
Site Prep On-Site (CalEEMod)	1.25	12.88	1.63	0.64
Grading On-Site (CalEEMod)	1.81	19.47	2.42	0.92
Paving On-Site (CalEEMod)	8.54	12.31	0.65	0.60
Arch Coating On-Site (CalEEMod)	50.87	3.57	0.20	0.19

Unmitigated Criteria Pollutant Emissions (maximum daily pounds per day) MAX DAILY OVERALL

	ROG	NOx	PM10	PM2.5
Demo On-Site (CalEEMod)	1.21	12.39	0.88	0.56
Site Prep On-Site (CalEEMod)	1.25	12.88	1.63	0.64
Grading On-Site (CalEEMod)	1.81	19.47	2.42	0.92
Paving On-Site (CalEEMod)	8.54	12.31	0.65	0.60
Arch Coating On-Site (CalEEMod)	50.87	3.57	0.20	0.19
Hauling, Vendor, and Worker Fugitive	--	--	0.01	0.01
Hauling, Vendor, and Worker Exhaust (EMFAC)	0.10	1.54	0.08	0.04
TOTAL	50.97	21.01	2.52	0.97

Mitigated

Mitigated Criteria Pollutant Emissions (maximum daily pounds per day) SUMMER

	ROG	NOx	PM10	PM2.5
Demo On-Site (CalEEMod)	1.21	12.39	0.69	0.53
Site Prep On-Site (CalEEMod)	1.25	12.88	1.04	0.58
Grading On-Site (CalEEMod)	1.81	19.47	1.53	0.82
Paving On-Site (CalEEMod)	8.54	12.31	0.65	0.60
Arch Coating On-Site (CalEEMod)	50.87	3.57	0.20	0.19

Mitigated Criteria Pollutant Emissions (maximum daily pounds per day) WINTER

	ROG	NOx	PM10	PM2.5
Demo On-Site (CalEEMod)	1.21	12.39	0.69	0.53
Site Prep On-Site (CalEEMod)	1.25	12.88	1.04	0.58
Grading On-Site (CalEEMod)	1.81	19.47	1.53	0.82
Paving On-Site (CalEEMod)	8.54	12.31	0.65	0.60
Arch Coating On-Site (CalEEMod)	50.87	3.57	0.20	0.19

Mitigated Criteria Pollutant Emissions (maximum daily pounds per day) MAX DAILY OVERALL

	ROG	NOx	PM10	PM2.5
Demo On-Site (CalEEMod)	1.21	12.39	0.69	0.53
Site Prep On-Site (CalEEMod)	1.25	12.88	1.04	0.58
Grading On-Site (CalEEMod)	1.81	19.47	1.53	0.82
Paving On-Site (CalEEMod)	8.54	12.31	0.65	0.60
Arch Coating On-Site (CalEEMod)	50.87	3.57	0.20	0.19
Hauling, Vendor, and Worker Fugitive	--	--	0.01	0.01
Hauling, Vendor, and Worker Exhaust (EMFAC)	0.10	1.54	0.08	0.04
TOTAL	50.97	21.01	1.62	0.87

OPERATIONAL EMISSIONS

Unmitigated Criteria Pollutant Emissions (tons)

	ROG	NOx	PM10	PM2.5
Mobile On-Site Exhaust (EMFAC)	0.02	0.03	0.00	0.00
Mobile On-Site Fugitive Dust (AP 42)	--	--	0.01	0.00
Mobile Off-Site Exhaust (EMFAC)	0.35	1.16	0.10	0.04
Mobile Off-Site Fugitive Dust (AP 42)	--	--	1.18	0.18
Area (CalEEMod)	0.12	0.00	0.00	0.00
Energy (CalEEMod)	0.00	0.02	0.00	0.00
Waste (CalEEMod)	0.00	0.00	0.00	0.00
Water (CalEEMod)	0.00	0.00	0.00	0.00
Total (tons)	0.49	1.21	1.29	0.22

Unmitigated Criteria Pollutant Emissions (tons)

	ROG	NOx	PM10	PM2.5
Total (pounds per day)	2.69	6.60	7.08	1.21

Greenhouse Gas Emissions

	CO2e
Mobile On-Site Exhaust (EMFAC)	10.81
Mobile Off-Site Exhaust (EMFAC)	1642.73
Area (CalEEMod)	0.00
Energy (CalEEMod)	18.33
Waste (CalEEMod)	9.98
Water (CalEEMod)	5.08
Total (tons)	1686.93

Platinum Trucking - Offsite Construction Exhaust Emissions

Background Information

Conversions

Tons	Pounds	Grams
1.00	2000.00	907185.00
Year	Days	
1.00	365.00	
Mile	Feet	
1.00	5280.00	

Construction Schedule

Phase	*Start Date*	*End Date*	*Number of Days*
Demo	6/1/2022	6/15/2022	13.00
Site Prep	6/16/2022	6/20/2022	4.00
Grading	6/21/2022	7/1/2022	10.00
Paving	7/5/2022	7/7/2022	3.00
Arch Coating	7/11/2022	7/15/2022	5.00
Total			35.00

Project schedule provided by client

Worker Trips per Construction Phase

Trips per Day	*Trips per Phase*	*Trip Length*
10.00	130.00	
10.00	40.00	
10.00	100.00	
10.00	30.00	
10.00	50.00	
Total Worker Tri	350.00	16.80

See CalEEMod Output
Trips per phase = trips/day/phase * days/phase.
Trip length from CalEEMod defaults.

Vendor Trips per Construction Phase

Trips per Day	*Trips per Phase*	*Trip Length*
5.23	68.00	
2.00	8.00	
2.00	20.00	
2.00	6.00	
10.40	52.00	
Total Vendor Trips	154.00	6.60

See CalEEMod Output
Trips per phase = trips/day/phase * days/phase.
Trip length from CalEEMod defaults.

Worker Vehicle Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*	*% VMT*
LDA	Gas	0.50	1.00
LDA	Disel	0.50	0.00
LDT1	Gas	0.25	1.00
LDT1	Diesel	0.25	0.00
LDT2	Gas	0.25	1.00
LDT2	Diesel	0.25	0.00

Vendor Vehicle Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*
HHDT	Diesel	0.50
MHDT	Diesel	0.50

EMFAC Output

Vehicle Categor	Model Year	Speed	Fuel	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RUNEX	PM2.5_IDLEX	PM2.5_STREX	PM2.5_PMTW	PM2.5_PMBW	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_PMTW	PM10_PMBW
Worker Vehicles																	
LDA	Aggregate	Aggregate	Gasoline	188006.0573	0.0590	0.0000	0.2938	0.0013	0.0000	0.0021	0.0020	0.0028	0.0015	0.0000	0.0023	0.0080	0.0080
LDA	Aggregate	Aggregate	Diesel	669.8548	0.2805	0.0000	0.0000	0.0187	0.0000	0.0000	0.0020	0.0028	0.0196	0.0000	0.0000	0.0080	0.0081
LDT1	Aggregate	Aggregate	Gasoline	19404.8781	0.2380	0.0000	0.5699	0.0025	0.0000	0.0039	0.0020	0.0035	0.0028	0.0000	0.0042	0.0080	0.0100
LDT1	Aggregate	Aggregate	Diesel	7.8887	1.4892	0.0000	0.0000	0.2278	0.0000	0.0000	0.0020	0.0039	0.2381	0.0000	0.0000	0.0080	0.0113
LDT2	Aggregate	Aggregate	Gasoline	82467.7782	0.1089	0.0000	0.4475	0.0014	0.0000	0.0021	0.0020	0.0033	0.0015	0.0000	0.0023	0.0080	0.0095
LDT2	Aggregate	Aggregate	Diesel	257.6786	0.0578	0.0000	0.0000	0.0075	0.0000	0.0000	0.0020	0.0032	0.0078	0.0000	0.0000	0.0080	0.0092
Vendor Vehicles																	
HHDT	Aggregate	Aggregate	Diesel	33913.4874	2.0228	0.5839	2.4172	0.0302	0.0002	0.0000	0.0089	0.0265	0.0316	0.0002	0.0000	0.0358	0.0756
MHDT	Aggregate	Aggregate	Diesel	15457.8715	1.4978	0.3074	1.5362	0.0160	0.0008	0.0000	0.0030	0.0157	0.0167	0.0009	0.0000	0.0120	0.0450
Haul Vehicles																	
HHDT	Aggregate	Aggregate	Diesel	33913.4874	2.0228	0.5839	2.4172	0.0302	0.0002	0.0000	0.0089	0.0265	0.0316	0.0002	0.0000	0.0358	0.0756

Emissions Calcs

							TONS PER YEAR			TONS PER YEAR					TONS PER YEAR			
						NOx	NOx	NOx	PM2.5	PM2.5	PM2.5	PM2.5	PM2.5	PM10	PM10	PM10	PM10	PM10
			g/mi	g/trip	g/vehicle/day	g/mi	g/mi	g/trip	g/mi	g/mi	g/trip	g/mi	g/mi	g/mi	g/mi	g/trip	g/mi	g/mi
	One-Way Trips	trip length (mi)	tot mi	tot trip	tot veh	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RUNEX	PM2.5_IDLEX	PM2.5_STREX	PM2.5_PMTW	PM2.5_PMBW	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_PMTW	PM10_PMBW
3	*Worker Vehicles*																	
4	174.4322	16.8000	2930.4617	174.4322	87.2161	0.0002	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.5678	16.8000	9.5383	0.5678	0.2839	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	87.4798	16.8000	1469.6606	87.4798	43.7399	0.0004	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0202	16.8000	0.3394	0.0202	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	87.2077	16.8000	1465.0902	87.2077	43.6039	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.2923	16.8000	4.9098	0.2923	0.1461	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	*Vendor Vehicles*																	
11	77.0000	6.6000	508.2000	77.0000	38.5000	0.0011	0.0003	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	77.0000	6.6000	508.2000	77.0000	38.5000	0.0008	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	*Haul Vehicles*																	
14	386.0000	20.0000	7720.0000	386.0000	193.0000	0.0172	0.0050	0.0010	0.0003	0.0000	0.0000	0.0001	0.0002	0.0003	0.0000	0.0000	0.0003	0.0006
	Total					0.0199	0.0055	0.0015	0.0003	0.0000	0.0000	0.0001	0.0003	0.0003	0.0000	0.0000	0.0004	0.0008

Total Construction Off-Site Emissions

Criteria Air Pollutant Exhaust Emissions

	ROG	NOx	PM10	PM2.5
tons	0.0017	0.0269	0.0015	0.0007
Avg lbs/day	0.0995	1.5388	0.0836	0.0378

Greenhouse Gas Emissions

	CO2	CH4	N2O
tons	18.3039	0.0001	0.0026
Avg lbs/day	1045.9369	0.0062	0.1492

	CO2	CH4	N2O
GWP	1.0000	298.0000	25.0000

	CO2e
MMT/year	18.4017

Haul Trips per Construction Phase

Trips per Phase	*Trip Length*
20.00	
0.00	
366.00	
0.00	
0.00	
386.00	20.00

See CalEEMod Output
Trips per phase = trips/day/phase * days/phase.
Trip length from CalEEMod defaults.

Haul Vehicle Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*
HHDT	Diesel	1.00

ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTSOAK	ROG_RUNLOSS	ROG_DIURN	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX
0.0136	0.0000	0.3909	0.1059	0.2728	1.7723	300.8590	0.0000	73.8620	0.0034	0.0000	0.0822	0.0058	0.0000	0.0350
0.0333	0.0000	0.0000	0.0000	0.0000	0.0000	240.5192	0.0000	0.0000	0.0015	0.0000	0.0000	0.0379	0.0000	0.0000
0.0564	0.0000	0.8846	0.2771	0.8504	4.7008	359.4754	0.0000	96.9941	0.0122	0.0000	0.1586	0.0157	0.0000	0.0468
0.3237	0.0000	0.0000	0.0000	0.0000	0.0000	408.0066	0.0000	0.0000	0.0150	0.0000	0.0000	0.0643	0.0000	0.0000
0.0179	0.0000	0.4966	0.1064	0.2921	1.8868	375.2187	0.0000	94.3093	0.0043	0.0000	0.1017	0.0081	0.0000	0.0428
0.0186	0.0000	0.0000	0.0000	0.0000	0.0000	322.1092	0.0000	0.0000	0.0009	0.0000	0.0000	0.0507	0.0000	0.0000
0.0234	0.0466	0.0000	0.0000	0.0000	0.0000	1588.9663	113.5108	0.0000	0.0011	0.0022	0.0000	0.2503	0.0179	0.0000
0.0407	0.0061	0.0000	0.0000	0.0000	0.0000	1137.8884	49.4360	0.0000	0.0019	0.0003	0.0000	0.1793	0.0078	0.0000
0.0234	0.0466	0.0000	0.0000	0.0000	0.0000	1588.9663	113.5108	0.0000	0.0011	0.0022	0.0000	0.2503	0.0179	0.0000

TONS PER YEAR						TONS PER YEAR								
ROG	ROG	ROG	ROG	ROG	ROG	CO2	CO2	CO2	CH4	CH4	CH4	N2O	N2O	N2O
g/mi	g/mi	g/trip	g/trip	g/trip	g/vehicle/day	g/mi	g/mi	g/trip	g/mi	g/mi	g/trip	g/mi	g/mi	g/trip
ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTSOAK	ROG_RUNLOSS	ROG_DIURN	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX
0.0000	0.0000	0.0001	0.0000	0.0001	0.0002	0.9719	0.0000	0.0142	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0001	0.0000	0.0001	0.0000	0.0001	0.0002	0.5824	0.0000	0.0094	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.6060	0.0000	0.0091	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8901	0.0636	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6374	0.0277	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000
0.0002	0.0004	0.0000	0.0000	0.0000	0.0000	13.5219	0.9660	0.0000	0.0000	0.0000	0.0000	0.0021	0.0002	0.0000
0.0004	0.0004	0.0002	0.0001	0.0002	0.0005	17.2140	1.0572	0.0326	0.0000	0.0000	0.0000	0.0024	0.0002	0.0000

Platinum Trucking - Offsite Construction Dust Emissions

Background Information

Conversions

Tons	Pounds	Grams
1.00	2000.00	907185.00

Year	Days
1.00	365.00

Mile	Feet
1.00	5280.00

Construction Schedule

Phase	*Start Date*	*End Date*	*Number of Days*
Demo	6/1/2022	6/15/2022	13.00
Site Prep	6/16/2022	6/20/2022	4.00
Grading	6/21/2022	7/1/2022	10.00
Paving	7/5/2022	7/7/2022	3.00
Arch Coating	7/11/2022	7/15/2022	5.00
Total			35.00

Project schedule provided by client

Worker Trips per Construction Phase

Trips per Day	*Trips per Phase*	*Trip Length*
10.00	130.00	
10.00	40.00	
10.00	100.00	
10.00	30.00	
10.00	50.00	
Total Worker Trips	350.00	16.80

See CalEEMod Output
Trips per phase = trips/day/phase * days/phase.
Trip length from CalEEMod defaults.

Vendor Trips per Construction Phase

Trips per Day	*Trips per Phase*	*Trip Length*
5.23	68.00	
2.00	8.00	
2.00	20.00	
2.00	6.00	
10.40	52.00	
Total Vendor Trips	154.00	6.60

See CalEEMod Output
Trips per phase = trips/day/phase * days/phase.
Trip length from CalEEMod defaults.

Haul Trips per Construction Phase

Trips per Phase	*Trip Length*
20.00	
0.00	
366.00	
0.00	
0.00	
386.00	20.00

See CalEEMod Output
Trips per phase = trips/day/phase * days/phase.
Trip length from CalEEMod defaults.

Worker Vehicle Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*	*% VMT*
LDA	Gas	0.50	1.00
LDA	Disel	0.50	0.00
LDT1	Gas	0.25	1.00
LDT1	Diesel	0.25	0.00
LDT2	Gas	0.25	1.00
LDT2	Diesel	0.25	0.00

Vendor Vehicle Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*
HHDT	Diesel	0.50
MHDT	Diesel	0.50

Haul Vehicle Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*
HHDT	Diesel	1.00

Construction Entrained Dust Calculation

Platinum Trucking
Sutter County

Road Dust Equation

E [lb/VMT] = k*(sL)^0.91 * (W)^1.02 * (1-P/4N)

Where:
E = the particulate emission factor in units of pounds of particulate matter per VMT
k = the U.S. EPA AP-42 particle size multiplier (PM_{10} = 0.0022 lb/VMT),[1]
sL = the roadway-specific silt loading in grams/square meter (g/m^2),[2,3,4,5]
W = the average weight of vehicles traveling the road (California statewide default = 2.4 tons),[5]
P = number of "wet" days, when at least one site per county received at least 0.01 inch of precipitation during the annual averaging period,[9] and
N = the number of days in the annual averaging period (default = 365)

Source: California Air Resources Board (CARB), Miscellaneous Process Methodology 7.9 — Entrained Road Travel, Paved Road Dust. Revised and updated March 2018, https://ww3.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2018.pdf.

Silt Loading Factor

Source: CARB, 2018.

Table 3: California Default Statewide and Local Silt Loading Values

Silt Loadings (g/m2)			
Freeway	**Major**	**Collector**	**Local**
0.015	0.032	0.032	0.32

2008 HPMS Travel Fractions			
0.088	0.628	0.129	0.155

Re-entrained PAVED Road Dust Emission Factors

Methodology

Calculation Methodology: USEPA AP-42, Paved Roads, Section 13.2.1, Revised January 2011:

http://www.epa.gov/ttn/chief/ap42/ch13/final/c13s0201.pdf

K-value from CARB, 2018.

Worker

Pollutant	Variables					E_{ext} (g/mi)
	k	sL	W	P	N	
PM10	1.00	0.075144	2.4	75	365	**0.21977**
PM2.5	0.15	0.075144	2.4	75	365	**0.03297**

Truck

Pollutant	Variables					E_{ext} (g/mi)
	k	sL	W	P	N	
PM10	1.00	0.075144	16.5	75	365	**1.57034**
PM2.5	0.15	0.075144	16.5	75	365	**0.23555**

Where:	**Source**
E = particulate emission factor (grams of particulate matter/VMT)	*calculation*
	Table 13.2.1-1 Particle Size Multipliers for Paved Road Equation of USEPA, 2011.
k = particle size multiplier (g/VMT)	
sL = local roadway silt loading (g/m2)	*CARB, 2018.*
W = average weight of vehicles on the road (tons)	*CARB, 2018.*
P = number of wet days with at least 0.254mm of precipitation	*Table 8 of CARB, 2018.*
N = number of days in the averaging period	annual days (365)

0

Total Emissions

Criteria Air Pollutant Emissions

	PM10	PM2.5
tons per year	0.0117	0.0090
Avg lbs/day	0.6683	0.5136

Platinum Trucking - Offsite Operational Exhaust Emissions

Background Information

Conversions

Tons	Pounds	Grams
1.00	2000.00	907185.00
Year	Days	
1.00	365.00	
Mile	Feet	
1.00	5280.00	

Automobile Trips

Trips per Day	*Trips per Year*	*Trip Length*
291.00	91041.43	38.10

Number of trips based on Traffic Study.
Trip length based on SACOG HEX for the project area.
Assume that the Project is operating 6 days per week, Monday-Saturday.

Heavy-Duty Truck Trips

Trips per Day	*Trips per Year*	*Trip Length*
133.00	41610.00	4.70

Number of trips based on Traffic Study.
Trip length based on the distance from Route 99 to the Project Site.
Assume that the Project is operating 6 days per week, Monday-Saturday.

Trip Length for HRA

Roadway Area Source Length
402.46 feet
0.08 miles

Length of three area sources representng emissions from roadway is 0.08 miles. Emissions from this portion of the roadway represent 0.08/2.35 of the total emissions from the trip.

Automobile Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*	*% VMT*
LDA	Gas	50%	99.68%
LDA	Disel	50%	0.32%
LDT1	Gas	25%	99.98%
LDT1	Diesel	25%	0.02%
LDT2	Gas	25%	99.67%
LDT2	Diesel	25%	0.33%

Heavy-Duty Truck Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*
HHDT	Diesel	100%

EMFAC Output

Vehicle Categor	Model Yea	Speed	Fuel	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RUNEX	PM2.5_IDLEX	PM2.5_STREX	PM2.5_PMTW	PM2.5_PMBW	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_PMTW	PM10_PMBW
Automobiles																	
LDA	Aggregate	Aggregate	Gasoline	188006.0573	0.0590	0.0000	0.2938	0.0013	0.0000	0.0021	0.0020	0.0028	0.0015	0.0000	0.0023	0.0080	0.0080
LDA	Aggregate	Aggregate	Diesel	669.8548	0.2805	0.0000	0.0000	0.0187	0.0000	0.0000	0.0020	0.0028	0.0196	0.0000	0.0000	0.0080	0.0081
LDT1	Aggregate	Aggregate	Gasoline	19404.8781	0.2380	0.0000	0.5699	0.0025	0.0000	0.0039	0.0020	0.0035	0.0028	0.0000	0.0042	0.0080	0.0100
LDT1	Aggregate	Aggregate	Diesel	7.8887	1.4892	0.0000	0.0000	0.2278	0.0000	0.0000	0.0020	0.0039	0.2381	0.0000	0.0000	0.0080	0.0113
LDT2	Aggregate	Aggregate	Gasoline	82467.7782	0.1089	0.0000	0.4475	0.0014	0.0000	0.0021	0.0020	0.0033	0.0015	0.0000	0.0023	0.0080	0.0095
LDT2	Aggregate	Aggregate	Diesel	257.6786	0.0578	0.0000	0.0000	0.0075	0.0000	0.0000	0.0020	0.0032	0.0078	0.0000	0.0000	0.0080	0.0092
Heavy-Duty Trucks																	
HHDT	Aggregate	Aggregate	Diesel	33913.4874	2.0228	0.5839	2.4172	0.0302	0.0002	0.0000	0.0089	0.0265	0.0316	0.0002	0.0000	0.0358	0.0756

Emissions Calcs

						TONS PER YEAR			TONS PER YEAR					TONS PER YEAR				
						NOx	NOx	NOx	PM2.5	PM2.5	PM2.5	PM2.5	PM2.5	PM10	PM10	PM10	PM10	PM10
1			g/mi	g/trip	g/vehicle/day	g/mi	g/mi	g/trip	g/mi	g/mi	g/trip	g/mi	g/mi	g/mi	g/mi	g/trip	g/mi	g/mi
2	One-Way Trips	trip length (mi)	tot mi	tot trip	tot veh	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RUNEX	PM2.5_IDLEX	PM2.5_STREX	PM2.5_PMTW	PM2.5_PMBW	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_PMTW	PM10_PMBW
3	*Worker Vehicles*																	
4	45373.0304	38.1000	1728712.4590	45373.0304	22686.5152	0.1125	0.0000	0.0147	0.0026	0.0000	0.0001	0.0038	0.0053	0.0028	0.0000	0.0001	0.0152	0.0153
5	147.6839	38.1000	5626.7553	147.6839	73.8419	0.0017	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0001
6	22755.1020	38.1000	866969.3853	22755.1020	11377.5510	0.2275	0.0000	0.0143	0.0024	0.0000	0.0001	0.0019	0.0033	0.0026	0.0000	0.0001	0.0076	0.0095
7	5.2552	38.1000	200.2218	5.2552	2.6276	0.0003	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
8	22684.3368	38.1000	864273.2331	22684.3368	11342.1684	0.1038	0.0000	0.0112	0.0014	0.0000	0.0001	0.0019	0.0032	0.0015	0.0000	0.0001	0.0076	0.0090
9	76.0203	38.1000	2896.3740	76.0203	38.0102	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	*Haul Vehicles*																	
11	41610.0000	4.7000	195567.0000	41610.0000	20805.0000	0.4361	0.1259	0.1109	0.0065	0.0001	0.0000	0.0019	0.0057	0.0068	0.0001	0.0000	0.0077	0.0163
	Total					0.8821	0.1259	0.1510	0.0131	0.0001	0.0003	0.0096	0.0176	0.0139	0.0001	0.0003	0.0383	0.0502

Total Emissions

Criteria Air Pollutant Emissions

	ROG	NOx	PM10	PM2.5
tons per year	0.3505	1.1590	0.1028	0.0405
Avg lbs/day	1.9204	6.3506	0.5632	0.2220

Criteria Air Pollutant Emisisons for HRA

	PM10
tons	0.0001
Avg lbs/day	0.0006

Greenhouse Gas Emissions

	CO2	CH4	N2O
tons	1630.5616	0.0331	0.0924
Avg lbs/day	8934.5842	0.1813	0.5066

	CO2	CH4	N2O
GWP	1.0000	298.0000	25.0000

	CO2e
MMT	1642.7305

ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTSOAK	ROG_RUNLOSS	ROG_DIURN	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX
0.0136	0.0000	0.3909	0.1059	0.2728	1.7723	300.8590	0.0000	73.8620	0.0034	0.0000	0.0822	0.0058	0.0000	0.0350
0.0333	0.0000	0.0000	0.0000	0.0000	0.0000	240.5192	0.0000	0.0000	0.0015	0.0000	0.0000	0.0379	0.0000	0.0000
0.0564	0.0000	0.8846	0.2771	0.8504	4.7008	359.4754	0.0000	96.9941	0.0122	0.0000	0.1586	0.0157	0.0000	0.0468
0.3237	0.0000	0.0000	0.0000	0.0000	0.0000	408.0066	0.0000	0.0000	0.0150	0.0000	0.0000	0.0643	0.0000	0.0000
0.0179	0.0000	0.4966	0.1064	0.2921	1.8868	375.2187	0.0000	94.3093	0.0043	0.0000	0.1017	0.0081	0.0000	0.0428
0.0186	0.0000	0.0000	0.0000	0.0000	0.0000	322.1092	0.0000	0.0000	0.0009	0.0000	0.0000	0.0507	0.0000	0.0000
0.0234	0.0466	0.0000	0.0000	0.0000	0.0000	1588.9663	113.5108	0.0000	0.0011	0.0022	0.0000	0.2503	0.0179	0.0000

TONS PER YEAR						TONS PER YEAR								
ROG	ROG	ROG	ROG	ROG	ROG	CO2	CO2	CO2	CH4	CH4	CH4	N2O	N2O	N2O
g/mi	g/mi	g/trip	g/trip	g/trip	g/vehicle/day	g/mi	g/vehicle/day	g/trip	g/mi	g/vehicle/day	g/trip	g/mi	g/vehicle/day	g/trip
ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTSOAK	ROG_RUNLOSS	ROG_DIURN	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX
0.0258	0.0000	0.0195	0.0053	0.0136	0.0443	573.3105	0.0000	3.6942	0.0064	0.0000	0.0041	0.0110	0.0000	0.0017
0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	1.4918	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
0.0539	0.0000	0.0222	0.0069	0.0213	0.0590	343.5398	0.0000	2.4329	0.0116	0.0000	0.0040	0.0150	0.0000	0.0012
0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0171	0.0000	0.0124	0.0027	0.0073	0.0236	357.4701	0.0000	2.3582	0.0041	0.0000	0.0025	0.0078	0.0000	0.0011
0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	1.0284	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
0.0050	0.0100	0.0000	0.0000	0.0000	0.0000	342.5425	2.6032	0.0000	0.0002	0.0000	0.0000	0.0540	0.0004	0.0000
0.1022	0.0100	0.0542	0.0149	0.0423	0.1269	1619.4730	2.6032	8.4854	0.0224	0.0000	0.0106	0.0880	0.0004	0.0040

Platinum Trucking - Offsite Operational Dust Emissions

Background Information

Conversions

Tons	Pounds	Grams
1.00	2000.00	907185.00
Year	Days	
1.00	365.00	
Mile	Feet	
1.00	5280.00	

Automobile Trips

Trips per Day	*Trips per Year*	*Trip Length*
291.00	91041.43	38.10

Number of trips based on Traffic Study.
Trip length based on SACOG HEX for the project area.
Assume that the Project is operating 6 days per week, Monday-Saturday.

Heavy-Duty Truck Trips

Trips per Day	*Trips per Year*	*Trip Length*
133.00	41610.00	4.70

Number of trips based on Traffic Study.
Trip length based on the distance from Route 99 to the Project Site.
Assume that the Project is operating 6 days per week, Monday-Saturday.

Automobile Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*	*% VMT*
LDA	Gas	50%	0%
LDA	Disel	50%	0%
LDT1	Gas	25%	0%
LDT1	Diesel	25%	0%
LDT2	Gas	25%	0%
LDT2	Diesel	25%	0%

Heavy-Duty Truck Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*
HHDT	Diesel	100%

Construction Entrained Dust Calculation

Platinum Trucking
Sutter County

Road Dust Equation

E [lb/VMT] = k*(sL)^0.91 * (W)^1.02 * (1-P/4N)

Where:
E = the particulate emission factor in units of pounds of particulate matter per VMT
k = the U.S. EPA AP-42 particle size multiplier (PM_{10} = 0.0022 lb/VMT),[1]
sL = the roadway-specific silt loading in grams/square meter (g/m^2),[2,3,4,5]
W = the average weight of vehicles traveling the road (California statewide default = 2.4 tons),[5]
P = number of "wet" days, when at least one site per county received at least 0.01 inch of precipitation during the annual averaging period,[9] and
N = the number of days in the annual averaging period (default = 365)
Source: California Air Resources Board (CARB), Miscellaneous Process Methodology 7.9 — Entrained Road Travel, Paved Road Dust. Revised and updated March 2018, https://ww3.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2018.pdf.

Silt Loading Factor

Source: CARB, 2018.

Table 3: California Default Statewide and Local Silt Loading Values

Silt Loadings (g/m2)			
Freeway	**Major**	**Collector**	**Local**
0.015	0.032	0.032	0.32

2008 HPMS Travel Fractions			
0.088	0.628	0.129	0.155

Re-entrained PAVED Road Dust Emission Factors

Methodology

Calculation Methodology: USEPA AP-42, Paved Roads, Section 13.2.1, Revised January 2011:
http://www.epa.gov/ttn/chief/ap42/ch13/final/c13s0201.pdf

K-value from CARB, 2018.

Worker

Pollutant	Variables k	sL	W	P	N	E_{ext} (g/mi)
PM10	1.00	0.075144	2.4	75	365	**0.21977**
PM2.5	0.15	0.075144	2.4	75	365	**0.03297**

Truck

Pollutant	Variables k	sL	W	P	N	E_{ext} (g/mi)
PM10	1.00	0.075144	16.5	75	365	**1.57034**
PM2.5	0.15	0.075144	16.5	75	365	**0.23555**

Where:	**Source**
E = particulate emission factor (grams of particulate matter/VMT)	*calculation*
k = particle size multiplier (g/VMT)	*Table 13.2.1-1 Particle Size Multipliers for*
sL = local roadway silt loading (g/m2)	*CARB, 2018.*
W = average weight of vehicles on the road (tons)	*CARB, 2018.*
P = number of wet days with at least 0.254mm of precipitation	*Table 8 of CARB, 2018.*
N = number of days in the averaging period	annual days (365)

Total Emissions

Criteria Air Pollutant Emissions

	PM10	PM2.5
tons per year	1.1788	0.1768
Avg lbs/day	6.4594	0.9689

0.0000

Platinum Trucking - Onsite Operational Exhaust Emissions

Background Information

Conversions

Tons	Pounds	Grams
1.00	2000.00	907185.00

Year	Days
1.00	365.00

Mile	Feet
1.00	5280.00

Automobile Trips

Trips per Day	*Trips per Year*	*Trip Length*
291.00	91041.43	0.08

Number of trips based on Traffic Study.
Assume yard is operating 6 days per week, Monday - Saturday.
Travel distance to the center of the truck yard is approximately 430 feet = 0.08 miles.

Heavy-Duty Truck Trips

Trips per Day	*Trips per Year*	*Trip Length*
133.00	41610.00	0.08

Number of trips based on Traffic Study.
Assume yard is operating 6 days per week, Monday - Saturday.
Travel distance to the center of the truck yard is approximately 430 feet = 0.08 miles.

TRUs

# TRUs	*Hours/Day*	*Days/Year*	*Hours/Year*
57.50	2.00	312.86	625.71

Assume yard is operating 6 days per week, Monday - Saturday.
Assume that 50% of the trucks onsite are equipped with TRUs.
Truck yard capacity is 115 trucks/trailers.

Automobile Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*	*% VMT*
LDA	Gas	50%	99.7%
LDA	Disel	50%	0.3%
LDT1	Gas	25%	100.0%
LDT1	Diesel	25%	0.0%
LDT2	Gas	25%	99.7%
LDT2	Diesel	25%	0.3%

Heavy-Duty Truck Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*
HHDT	Diesel	100%

EMFAC Output

Vehicle Categor	Model Year	Speed	Fuel	Total VMT	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	ROG_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX
Automobiles											
LDA	Aggregate	5.0000	Gasoline	579.1844	0.1087	0.0090	0.0098	0.0889	711.1409	0.0221	0.0106
LDA	Aggregate	5.0000	Diesel	1.8852	0.3079	0.0701	0.0732	0.2840	610.7766	0.0132	0.0962
LDT1	Aggregate	5.0000	Gasoline	55.3062	0.4589	0.0159	0.0173	0.3410	849.8845	0.0741	0.0299
LDT1	Aggregate	5.0000	Diesel	0.0128	1.0421	0.9342	0.9765	1.3286	1021.2866	0.0617	0.1609
LDT2	Aggregate	5.0000	Gasoline	267.2838	0.2046	0.0095	0.0103	0.1145	887.4161	0.0279	0.0152
LDT2	Aggregate	5.0000	Diesel	0.8957	0.1681	0.0239	0.0250	0.2723	806.2758	0.0126	0.1270

5MPH emissions were calculated for automobiles to account for idling through the parking lot. Heavy-duty idling emissions are captured in OPS Offsite Exhaust calculations using EMFAC IDLEX emission factors.
See: https://ww2.arb.ca.gov/sites/default/files/2021-06/emfac202x_users_guide_01112021_final_ada.pdf

Vehicle Categor	Model Year	Horsepower Bin	Fuel	NOx_tpd	PM2.5_tpd	PM10_tpd	ROG_tpd	CO2_tpd	Fuel Consumption	Total_Activity_hpy	Total_Population	Horsepower_Hours_hhpy
TRUs												
Transportation	Aggregate	Aggregate	Diesel	0.0077	0.0004	0.0004	0.0062	1.1694	39920.0900	72058.3100	50.0000	0.0000

Emissions Calcs

						TONS PER YEAR	TONS PER YEAR	TONS PER YEAR	TONS PER YEAR	TONS PER YEAR		
						NOx	PM2.5	PM10	ROG	CO2	CH4	N2O
1			g/mi	g/trip	g/vehicle/day	g/mi	g/mi	g/mi	g/mi	g/mi	g/mi	g/mi
2	One-Way Trips	trip length (mi)	tot mi	tot trip	tot veh	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	ROG_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX
3	*Automobiles*											
4	45373.0304	0.0814	3695.1521	45373.0304	22686.5152	0.0004	0.0000	0.0000	0.0004	2.8966	0.0001	0.0000
5	147.6839	0.0814	12.0273	147.6839	73.8419	0.0000	0.0000	0.0000	0.0000	0.0081	0.0000	0.0000
6	22755.1020	0.0814	1853.1617	22755.1020	11377.5510	0.0009	0.0000	0.0000	0.0007	1.7361	0.0002	0.0001
7	5.2552	0.0814	0.4280	5.2552	2.6276	0.0000	0.0000	0.0000	0.0000	0.0005	0.0000	0.0000
8	22684.3368	0.0814	1847.3986	22684.3368	11342.1684	0.0004	0.0000	0.0000	0.0002	1.8071	0.0001	0.0000
9	76.0203	0.0814	6.1910	76.0203	38.0102	0.0000	0.0000	0.0000	0.0000	0.0055	0.0000	0.0000
	Total					0.0018	0.0001	0.0001	0.0013	6.4540	0.0003	0.0001

5MPH emissions were calculated for automobiles to account for idling through the parking lot. Heavy-duty idling emissions are captured in OPS Offsite Exhaust calculations using EMFAC IDLEX emission factors.
See: https://ww2.arb.ca.gov/sites/default/files/2021-06/emfac202x_users_guide_01112021_final_ada.pdf

			TONS PER YEAR	TONS PER YEAR	TONS PER YEAR	TONS PER YEAR	TONS PER YEAR
			NOx	PM2.5	PM10	ROG	CO2
			g/mi	g/mi	g/mi	g/mi	g/mi
# TRUs	Total hrs/year/TRU		NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	ROG_RUNEX	0.0000
TRUs							
57.5000	625.7143		0.0281	0.0013	0.0015	0.0226	4.2624

Total Emissions

Criteria Air Pollutant Emissions

	ROG	NOx	PM10	PM2.5
tons per year	0.0239	0.02988	0.0015	0.0014
Avg lbs/day	0.1310	0.1637	0.0085	0.0078

Greenhouse Gas Emissions

	CO2	CH4	N2O
tons per year	10.7163	0.0003	0.0001
Avg lbs/day	58.7197	0.0016	0.0008

Criteria Air Pollutant Emisisons for HRA

	PM10
tons	0.0015
Avg lbs/day	0.0080

	CO2	CH4	N2O
GWP	1.0000	298.0000	25.0000

	CO2e
MMT	10.8088

Platinum Trucking - Onsite Operational Dust Emissions

Background Information

Conversions

Tons	Pounds	Grams
1.00	2000.00	907185.00

Year	Days
1.00	365.00

Mile	Feet
1.00	5280.00

Automobile Trips

Trips per Day	*Trips per Year*	*Trip Length*
291.00	91041.43	0.08

Number of trips based on Traffic Study.
Trip length based on SACOG HEX for the project area.
Assume that the Project is operating 6 days per week, Monday-Saturday.

Heavy-Duty Truck Trips

Trips per Day	*Trips per Year*	*Trip Length*
133.00	41610.00	0.08

Number of trips based on Traffic Study.
Trip length based on the distance from Route 99 to the Project Site.
Assume that the Project is operating 6 days per week, Monday-Saturday.

Automobile Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*	*% VMT*
LDA	Gas	50%	0%
LDA	Disel	50%	0%
LDT1	Gas	25%	0%
LDT1	Diesel	25%	0%
LDT2	Gas	25%	0%
LDT2	Diesel	25%	0%

Heavy-Duty Truck Fleet Mix

Vehicle Type	*Fuel Type*	*% Fleet*
HHDT	Diesel	100%

Construction Entrained Dust Calculation

Platinum Trucking
Sutter County

Road Dust Equation

E [lb/VMT] = k*(sL)^0.91 * (W)^1.02 * (1-P/4N)

Where:
E = the particulate emission factor in units of pounds of particulate matter per VMT
k = the U.S. EPA AP-42 particle size multiplier (PM_{10} = 0.0022 lb/VMT),[1]
sL = the roadway-specific silt loading in grams/square meter (g/m^2),[2,3,4,5]
W = the average weight of vehicles traveling the road (California statewide default = 2.4 tons),[5]
P = number of "wet" days, when at least one site per county received at least 0.01 inch of precipitation during the annual averaging period,[9] and
N = the number of days in the annual averaging period (default = 365)

Source: California Air Resources Board (CARB), Miscellaneous Process Methodology 7.9 — Entrained Road Travel, Paved Road Dust. Revised and updated March 2018, https://ww3.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2018.pdf.

Silt Loading Factor

Source: CARB, 2018.

Table 3: California Default Statewide and Local Silt Loading Values

Silt Loadings (g/m2)			
Freeway	**Major**	**Collector**	**Local**
0.015	0.032	0.032	0.32

2008 HPMS Travel Fractions			
0.088	0.628	0.129	0.155

Re-entrained PAVED Road Dust Emission Factors

Methodology

Calculation Methodology: USEPA AP-42, Paved Roads, Section 13.2.1, Revised January 2011:

http://www.epa.gov/ttn/chief/ap42/ch13/final/c13s0201.pdf

K-value from CARB, 2018.

Worker

Pollutant	Variables k	sL	W	P	N	E_{ext} (g/mi)
PM10	1.00	0.075144	2.4	75	365	**0.21977**
PM2.5	0.15	0.075144	2.4	75	365	**0.03297**

Truck

Pollutant	Variables k	sL	W	P	N	E_{ext} (g/mi)
PM10	1.00	0.075144	16.5	75	365	**1.57034**
PM2.5	0.15	0.075144	16.5	75	365	**0.23555**

Where:	**Source**
E = particulate emission factor (grams of particulate matter/VMT)	*calculation*
k = particle size multiplier (g/VMT)	*Table 13.2.1-1 Particle Size Multipliers for Paved Road Equation of USEPA, 2011.*
sL = local roadway silt loading (g/m2)	*CARB, 2018.*
W = average weight of vehicles on the road (tons)	*CARB, 2018.*
P = number of wet days with at least 0.254mm of precipitation	*Table 8 of CARB, 2018.*
N = number of days in the averaging period	annual days (365)

Total Emissions

Criteria Air Pollutant Emissions

	PM10	PM2.5
tons per year	0.0075	0.0011
Avg lbs/day	0.0412	0.0062

0.0000

Platinum Trucking - Health Risk Assessment - MEIR

Background Information

Conversions

Tons	Pounds	Grams			
1	2000	907185			
Year	Days	Day	Hour	Hour	Seconds
1	365	1	24	1	3600
Mile	Feet				
1	5280				

Emissions Information

Sensitive Receptors	Distance		AERSCREEN OUT $[ug/m^3]/[g/s]$	
	(ft)	(m)	max	annual
Project Site	1312	400	1.80E+03	1.80E+02
Roadway Source 1	162	49	2.01E+04	2.01E+03
Roadway Source 2	86	26	3.21E+04	3.21E+03
Roadway Source 3	138	42	2.27E+04	2.27E+03

	DPM Exhaust (tons/year)[2]	DPM Exhaust (tons/year)[2]
	Unmitigated	Mitigated
Onsite Trucks & TRUs &	1.45E-03	1.45E-03
Offsite Trucks	1.14E-04	1.14E-04

[2]CalEEMod PM_{10} exhaust

[3]See construction schedule screenshot from CalEEMod

	DPM Exhaust (g/s)	DPM Exhaust (g/s)
	Unmitigated	Mitigated
Onsite Trucks & TRUs	4.18E-05	4.18E-05
Offsite Trucks	3.27E-06	3.27E-06

	Unmitigated	Mitigated
	C_{AIR}	
Project Site	7.52E-03	7.52E-03
Roadway Source 1	2.19E-03	2.19E-03
Roadway Source 2	3.50E-03	3.50E-03
Roadway Source 3	2.47E-03	2.47E-03
Total Concentration	1.57E-02	1.57E-02

Equations

Cancer Risk = Dose inhalation × Inhalation CPF × ASF × ED/AT × FAH **(Equation 8.2.4 A)**

Where:

Cancer Risk = residential inhalation cancer risk

Dose inhalation (mg/kg-day) = C_{AIR} × DBR × A × EF × 10^{-6} **(Equation 5.4.1.1)**

Inhalation CPF = inhalation cancer potency factor ($[mg/kg/day]^{-1}$)

ASF = age sensitivity factor for a specified age group (unitless)

ED = exposure duration for a specified age group (years)

AT = averaging time period over which exposure is averaged in days (years)

FAH = fraction of time at home (unitless)

Where:

C_{AIR} = concentration of compound in air in micrograms per cubic meter ($\mu g/m^3$)

DBR = daily breathing rate in liter per kilogram of body weight per day (L/kg-body weight/day)

A = inhalation absorption factor (1 for DPM, unitless)

EF = exposure frequency in days per year (unitless, days/365 days)

10^{-6} = micrograms to milligrams conversion, liters to cubic meters conversion

Hazard Quotient = C_{air} / REL **(Section 8.3.1)**

Where:

Hazard Quotient = chronic non-cancer hazard

C_{AIR} = concentration of compound in air in micrograms per cubic meter ($\mu g/m^3$)

REL = Chronic non-cancer Reference Exposure Level for substance ($\mu g/m^3$)

Risk Calculation

Dose Inhalation Inputs

Receptor Type	Exposure Scenario	Receptor Group Age	C_{AIR} (µg/m^3) Unmitigated	C_{AIR} (µg/m^3) Mitigated	DBR (L/kg-day)	A (unitless)	EF (days/year)	REL_{DPM}
Off-Site Child Resident	Net New Operations	3rd Trimester	1.57E-02	1.57E-02	361	1	0.96	5
		Age 0<2	1.57E-02	1.57E-02	1090	1	0.96	5
		Age 2<16	1.57E-02	1.57E-02	572	1	0.96	5
		Age 16<30	1.57E-02	1.57E-02	261	1	0.96	5

Daily breathing rate is based on the OEHHA 95th percentile (Table 5.7).

Dose Inhalation Outputs

Receptor Type	Exposure Scenario	Receptor Group Age	Dose inhalation (mg/kg-day) Unmitigated	Dose inhalation (mg/kg-day) Mitigated
Off-Site Child Resident	Construction	3rd Trimester	5.43E-06	5.43E-06
		Age 0<2	1.64E-05	1.64E-05
		Age 2<16	8.61E-06	8.61E-06
		Age 16<30	3.93E-06	3.93E-06

0

Risk Inputs

Receptor Type	Exposure Scenario	Receptor Group Age	CPF (mg/kg-day^{-1})	ASF (unitless)	ED (years)	AT (years)	Unmitigated FAH (unitless)	Mitigated FAH (unitless)	MAF (unitless)
Off-Site Child Resident	Construction	3rd Trimester	1.1	10	0.25	70.00	0.85	0.85	1
		Age 0<2	1.1	10	2.00	70.00	0.85	0.85	1
		Age 2<16	1.1	3	14.00	70.00	0.72	0.72	1
		Age 16<30	1.1	1	14.00	70.00	0.73	0.73	1

Inhalation cancer potency factor from Table 7.1

Fraction of time at home is set to 1 for residential since the nearest school unmitigated cancer risk is >1 per million, per OEHHA Table 8.4.

Risk Outputs

Receptor Type	Exposure Scenario	Receptor Group Age	Cancer Risk (per million) Unmitigated	Cancer Risk (per million) Mitigated
Off-Site Child Resident	Construction	3rd Trimester	1.81E-01	1.81E-01
		Age 0<2	4.38E+00	4.38E+00
		Age 2<16	4.09E+00	4.09E+00
		Age 16<30	6.31E-01	6.31E-01
Total Cancer Risk (per million) , Resident			9.29	9.29

SOURCE: Office of Environmental Health Hazard Assessment, 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments* . February.

Table 7.1 Inhalation and Oral Cancer Potency Factors

Substance	Chemical Abstract Service Number (CAS)	Inhalation Potency Factor $(mg/kg\text{-}day)^{-1}$	Oral Slope Factor $(mg/kg\text{-}day)^{-1}$
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	$1.3 \times 10^{+3}$	$1.3 \times 10^{+3}$
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	$1.3 \times 10^{+3}$	$1.3 \times 10^{+3}$
1,2,3,4,,6,7,8,9-Octachlorodibenzofuran	39001-02-0	$3.9 \times 10^{+1}$	$3.9 \times 10^{+1}$
Chlorinated paraffins	108171-26-2	8.9×10^{-2}	
Chloroform	67-66-3	1.9×10^{-2}	
4-Chloro-o-phenylenediamine	95-83-0	1.6×10^{-2}	
p-Chloro-o-toluidine	95-69-2	2.7×10^{-1}	
Chromium (hexavalent)	18540-29-9	$5.1 \times 10^{+2}$	5×10^{-1}
Chrysene [BaP]	218-01-9	3.9×10^{-2}	1.2×10^{-1}
Creosote	8001-58-9	*	
p-Cresidine	120-71-8	1.5×10^{-1}	
Cupferron	135-20-6	2.2×10^{-1}	
2,4-Diaminoanisole	615-05-4	2.3×10^{-2}	
2,4-Diaminotoluene	95-80-7	$4.0 \times 10^{+0}$	
Dibenz[*a,h*]acridine [BaP]	226-36-8	3.9×10^{-1}	$1.2 \times 10^{+0}$
Dibenz[*a,j*]acridine [BaP]	224-42-0	3.9×10^{-1}	$1.2 \times 10^{+0}$
Dibenz[*a,h*]anthracene [BaP]	53-70-3	$4.1 \times 10^{+0}$	$4.1 \times 10^{+0}$
Dibenzo[*a,e*]pyrene [BaP]	192-65-4	$3.9 \times 10^{+0}$	$1.2 \times 10^{+1}$
Dibenzo[*a,h*]pyrene [BaP]	189-64-0	$3.9 \times 10^{+1}$	$1.2 \times 10^{+2}$
Dibenzo[*a,i*]pyrene [BaP]	189-55-9	$3.9 \times 10^{+1}$	$1.2 \times 10^{+2}$
Dibenzo[*a,l*]pyrene [BaP]	191-30-0	$3.9 \times 10^{+1}$	$1.2 \times 10^{+2}$
7H-Dibenzo[*c,g*]carbazole [BaP]	194-59-2	$3.9 \times 10^{+0}$	$1.2 \times 10^{+1}$
1,2-Dibromo-3-chloropropane	96-12-8	$7.0 \times 10^{+0}$	
1,4-Dichlorobenzene	106-46-7	4.0×10^{-2}	
3,3'-Dichlorobenzidine	91-94-1	$1.2 \times 10^{+0}$	
1,1-Dichloroethane	75-34-3	5.7×10^{-3}	
Diesel exhaust [B]	NA	$1.1 \times 10^{+0}$	
Diethylhexylphthalate	117-81-7	8.4×10^{-3}	8.4×10^{-3}
p-Dimethylaminoazobenzene	60-11-7	$4.6 \times 10^{+0}$	
7,12-Dimethylbenz[*a*]anthracene [BaP]	57-97-6	$2.5 \times 10^{+2}$	$2.5 \times 10^{+2}$
1,6-Dinitropyrene [BaP]	42397-64-8	$3.9 \times 10^{+1}$	$1.2 \times 10^{+2}$
1,8-Dinitropyrene [BaP]	42397-65-9	$3.9 \times 10^{+0}$	$1.2 \times 10^{+1}$
2,4-Dinitrotoluene	121-14-2	3.1×10^{-1}	
1,4-Dioxane	123-91-1	2.7×10^{-2}	
Epichlorohydrin	106-89-8	8.0×10^{-2}	
Ethyl benzene	100-41-4	8.7×10^{-3}	1.1×10^{-2}
Ethylene dibromide	106-93-4	2.5×10^{-1}	
Ethylene dichloride	107-06-2	7.2×10^{-2}	
Ethylene oxide	75-21-8	3.1×10^{-1}	

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Table 6.3 Chronic Inhalation Reference Exposure Levels (RELs) and Chronic Hazard Index Target Organ System(s)

Substance	Chemical Abstract Service Number (CAS)	Chronic Inhalation REL $(\mu g/m^3)$	Chronic Inhalation Hazard Index Target Organ System(s)
Chlorinated Dibenzofurans [b]			
2,3,7,8-Tetrachlorodibenzofuran [b]	5120-73-19	4.0×10^{-4}	Alimentary System (Liver); Development; Endocrine System; Hematologic System; Reproductive System; Respiratory System
1,2,3,7,8-Pentachlorodibenzofuran [b]	57117-41-6	1.3×10^{-3}	
2,3,4,7,8-Pentachlorodibenzofuran [b]	57117-31-4	1.3×10^{-4}	
1,2,3,4,7,8-Hexachlorodibenzofuran [b]	70648-26-9	4.0×10^{-4}	
1,2,3,6,7,8-Hexachlorodibenzofuran [b]	57117-44-9	4.0×10^{-4}	
1,2,3,7,8,9-Hexachlorodibenzofuran [b]	72918-21-9	4.0×10^{-4}	
2,3,4,6,7,8-Hexachlorodibenzofuran [b]	60851-34-5	4.0×10^{-4}	
1,2,3,4,6,7,8-Heptachlorodibenzofuran [b]	67562-39-4	4.0×10^{-3}	
1,2,3,4,7,8,9-Heptachlorodibenzofuran [b]	55673-89-7	4.0×10^{-3}	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran [b]	39001-02-0	1.3×10^{-1}	
Chlorobenzene	108-90-7	$1.0 \times 10^{+3}$	Alimentary System (Liver); Kidney; Reproductive System
Chloroform	67-66-3	$3.0 \times 10^{+2}$	Alimentary System (Liver); Development; Kidney
Chloropicrin	76-06-2	4.0×10^{-1}	Respiratory System
Chromium VI & Soluble Chromium VI Compounds (except chromic trioxide)	18540-29-9	2.0×10^{-1}	Respiratory System
Chromic Trioxide (as chromic acid mist)	1333-82-0	2.0×10^{-3}	Respiratory System
Cresol Mixtures	1319-77-3	$6.0 \times 10^{+2}$	Nervous System
1,4-Dichlorobenzene	106-46-7	$8.0 \times 10^{+2}$	Alimentary System (Liver); Kidney; Nervous System; Respiratory System
1,1-Dichloroethylene (Vinylidene Chloride)	75-35-4	$7.0 \times 10^{+1}$	Alimentary System (Liver)
Diesel Exhaust [a]	N/A	$5.0 \times 10^{+0}$	Respiratory System
Diethanolamine	111-42-2	$3.0 \times 10^{+0}$	Hematologic System; Respiratory System
N,N-Dimethylformamide	68-12-2	$8.0 \times 10^{+1}$	Alimentary System (Liver); Respiratory System
1,4-Dioxane	123-91-1	$3.0 \times 10^{+3}$	Alimentary System (Liver); Cardiovascular System; Kidney
Epichlorohydrin	106-89-8	$3.0 \times 10^{+0}$	Eyes; Respiratory System
1,2-Epoxybutane	106-88-7	$2.0 \times 10^{+1}$	Cardiovascular System; Respiratory System
Ethylbenzene	100-41-4	$2.0 \times 10^{+3}$	Alimentary System (Liver); Kidney; Development; Endocrine System
Ethyl Chloride	75-00-3	$3.0 \times 10^{+4}$	Alimentary System (Liver); Development
Ethylene Dibromide	106-93-4	8.0×10^{-1}	Reproductive System
Ethylene Dichloride	107-06-2	$4.0 \times 10^{+2}$	Alimentary System (Liver)
Ethylene Glycol	107-21-1	$4.0 \times 10^{+2}$	Development; Kidney; Respiratory System
Ethylene Glycol Monoethyl Ether	110-80-5	$7.0 \times 10^{+1}$	Hematologic System; Reproductive System
Ethylene Glycol Monoethyl Ether Acetate	111-15-9	$3.0 \times 10^{+2}$	Development

Table 5.6 Point Estimates of Residential Daily Breathing Rates for 3^{rd} trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years (L/kg BW-day)

	3^{rd} Trimester[a]	0<2 years	2<9 years	2<16 years	16<30 years	16<70 years
	L/kg-day					
Mean	225	658	535	452	210	185
95th Percentile	361	1090	861	745	335	290

[a] 3^{rd} trimester **breathing rates** based on breathing rates of pregnant women using the assumption that the dose to the fetus during the 3rd trimester is the same as that to the mother.

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Table 8.4 Recommendations for Fraction of Time at Home (FAH) for Evaluating Residential Cancer Risk

Age Range	Fraction of Time at Residence
3^{rd} Trimester, and 0<2 years	0.85[1]
2<16 years[2]	0.72[1]
16-70 years[3]	0.73

[1] Use FAH = 1 if a school is within the 1×10^{-6} (or greater) cancer risk isopleth

Table 8.3 Age Sensitivity Factors by Age Group for Cancer Risk Assessment

Age Group	Age Sensitivity Factor (unitless)
3^{rd} Trimester	10
0<2 years	10
2<9 years	3
2<16 years	3
16<30 years	1
16-70 years	1

Platinum Trucking - Health Risk Assessment - SPSP Receptors

Background Information

Conversions

Tons	Pounds	Grams			
1	2000	907185			
Year	Days	Day	Hour	Hour	Seconds
1	365	1	24	1	3600
Mile	Feet				
1	5280				

Emissions Information

Sensitive Receptors	Distance		AERSCREEN OUT [ug/m3]/[g/s]	
	(ft)	(m)	max	annual
Project Site	895	273	2.46E+03	2.46E+02
Roadway Source 1	1176	358	4.58E+03	4.58E+02
Roadway Source 2	1185	361	4.55E+03	4.55E+02
Roadway Source 3	1209	369	4.48E+03	4.48E+02

	DPM Exhaust (tons/year)[2]	DPM Exhaust (tons/year)[2]
	Unmitigated	Mitigated
Onsite Trucks & TRUs	1.45E-03	1.45E-03
Offsite Trucks	1.14E-04	1.14E-04

[2]CalEEMod PM_{10} exhaust

[3]See construction schedule screenshot from CalEEMod

	DPM Exhaust (g/s)	DPM Exhaust (g/s)
	Unmitigated	Mitigated
Onsite Trucks & TRUs	4.18E-05	4.18E-05
Offsite Trucks	3.27E-06	3.27E-06

	Unmitigated	Mitigated
	C_{AIR}	
Project Site	1.03E-02	1.03E-02
Roadway Source 1	4.99E-04	4.99E-04
Roadway Source 2	4.96E-04	4.96E-04
Roadway Source 3	4.88E-04	4.88E-04
Total Concentration	1.18E-02	1.18E-02

Equations

Cancer Risk = Dose inhalation × Inhalation CPF × ASF × ED/AT × FAH **(Equation 8.2.4 A)**

Where:

Cancer Risk = residential inhalation cancer risk

Dose inhalation (mg/kg-day) = C_{AIR} × DBR × A × EF × 10^{-6} **(Equation 5.4.1.1)**

Inhalation CPF = inhalation cancer potency factor ($[mg/kg/day]^{-1}$)

ASF = age sensitivity factor for a specified age group (unitless)

ED = exposure duration for a specified age group (years)

AT = averaging time period over which exposure is averaged in days (years)

FAH = fraction of time at home (unitless)

Where:

C_{AIR} = concentration of compound in air in micrograms per cubic meter ($\mu g/m^3$)

DBR = daily breathing rate in liter per kilogram of body weight per day (L/kg-body weight/day)

A = inhalation absorption factor (1 for DPM, unitless)

EF = exposure frequency in days per year (unitless, days/365 days)

10^{-6} = micrograms to milligrams conversion, liters to cubic meters conversion

Hazard Quotient = C_{air} / REL **(Section 8.3.1)**

Where:

Hazard Quotient = chronic non-cancer hazard

C_{AIR} = concentration of compound in air in micrograms per cubic meter ($\mu g/m^3$)

REL = Chronic non-cancer Reference Exposure Level for substance ($\mu g/m^3$)

Risk Calculation

Dose Inhalation Inputs

Receptor Type	Exposure Scenario	Receptor Group Age	C_{AIR} ($\mu g/m^3$) Unmitigated	C_{AIR} ($\mu g/m^3$) Mitigated	DBR (L/kg-day)	A (unitless)	EF (days/year)	REL_{DPM}
Off-Site Child Resident	Net New Operations	3rd Trimester	1.18E-02	1.18E-02	361	1	0.96	5
		Age 0<2	1.18E-02	1.18E-02	1090	1	0.96	5
		Age 2<16	1.18E-02	1.18E-02	572	1	0.96	5
		Age 16<30	1.18E-02	1.18E-02	261	1	0.96	5

Daily breathing rate is based on the OEHHA 95th percentile (Table 5.7).

Dose Inhalation Outputs

Receptor Type	Exposure Scenario	Receptor Group Age	Unmitigated Dose inhalation (mg/kg-day)	Mitigated Dose inhalation (mg/kg-day)
Off-Site Child Resident	Construction	3rd Trimester	4.07E-06	4.07E-06
		Age 0<2	1.23E-05	1.23E-05
		Age 2<16	6.46E-06	6.46E-06
		Age 16<30	2.95E-06	2.95E-06

0

Risk Inputs

Receptor Type	Exposure Scenario	Receptor Group Age	CPF (mg/kg-day^{-1})	ASF (unitless)	ED (years)	AT (years)	Unmitigated FAH (unitless)	Mitigated FAH (unitless)	MAF (unitless)
Off-Site Child Resident	Construction	3rd Trimester	1.1	10	0.25	70.00	0.85	0.85	1
		Age 0<2	1.1	10	2.00	70.00	0.85	0.85	1
		Age 2<16	1.1	3	14.00	70.00	0.72	0.72	1
		Age 16<30	1.1	1	14.00	70.00	0.73	0.73	1

Inhalation cancer potency factor from Table 7.1

Fraction of time at home is set to 1 for residential since the nearest school unmitigated cancer risk is >1 per million, per OEHHA Table 8.4.

Risk Outputs

Receptor Type	Exposure Scenario	Receptor Group Age	Unmitigated Cancer Risk (per million)	Mitigated Cancer Risk (per million)
Off-Site Child Resident	Construction	3rd Trimester	1.36E-01	1.36E-01
		Age 0<2	3.29E+00	3.29E+00
		Age 2<16	3.07E+00	3.07E+00
		Age 16<30	4.73E-01	4.73E-01
Total Cancer Risk (per million) , Resident			6.97	6.97

SOURCE: Office of Environmental Health Hazard Assessment, 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments* . February.

Table 7.1 Inhalation and Oral Cancer Potency Factors

Substance	Chemical Abstract Service Number (CAS)	Inhalation Potency Factor $(mg/kg\text{-}day)^{-1}$	Oral Slope Factor $(mg/kg\text{-}day)^{-1}$
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	$1.3 \times 10^{+3}$	$1.3 \times 10^{+3}$
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	$1.3 \times 10^{+3}$	$1.3 \times 10^{+3}$
1,2,3,4,,6,7,8,9-Octachlorodibenzofuran	39001-02-0	$3.9 \times 10^{+1}$	$3.9 \times 10^{+1}$
Chlorinated paraffins	108171-26-2	8.9×10^{-2}	
Chloroform	67-66-3	1.9×10^{-2}	
4-Chloro-o-phenylenediamine	95-83-0	1.6×10^{-2}	
p-Chloro-o-toluidine	95-69-2	2.7×10^{-1}	
Chromium (hexavalent)	18540-29-9	$5.1 \times 10^{+2}$	5×10^{-1}
Chrysene [BaP]	218-01-9	3.9×10^{-2}	1.2×10^{-1}
Creosote	8001-58-9	*	
p-Cresidine	120-71-8	1.5×10^{-1}	
Cupferron	135-20-6	2.2×10^{-1}	
2,4-Diaminoanisole	615-05-4	2.3×10^{-2}	
2,4-Diaminotoluene	95-80-7	$4.0 \times 10^{+0}$	
Dibenz[*a,h*]acridine [BaP]	226-36-8	3.9×10^{-1}	$1.2 \times 10^{+0}$
Dibenz[*a,j*]acridine [BaP]	224-42-0	3.9×10^{-1}	$1.2 \times 10^{+0}$
Dibenz[*a,h*]anthracene [BaP]	53-70-3	$4.1 \times 10^{+0}$	$4.1 \times 10^{+0}$
Dibenzo[*a,e*]pyrene [BaP]	192-65-4	$3.9 \times 10^{+0}$	$1.2 \times 10^{+1}$
Dibenzo[*a,h*]pyrene [BaP]	189-64-0	$3.9 \times 10^{+1}$	$1.2 \times 10^{+2}$
Dibenzo[*a,i*]pyrene [BaP]	189-55-9	$3.9 \times 10^{+1}$	$1.2 \times 10^{+2}$
Dibenzo[*a,l*]pyrene [BaP]	191-30-0	$3.9 \times 10^{+1}$	$1.2 \times 10^{+2}$
7H-Dibenzo[*c,g*]carbazole [BaP]	194-59-2	$3.9 \times 10^{+0}$	$1.2 \times 10^{+1}$
1,2-Dibromo-3-chloropropane	96-12-8	$7.0 \times 10^{+0}$	
1,4-Dichlorobenzene	106-46-7	4.0×10^{-2}	
3,3'-Dichlorobenzidine	91-94-1	$1.2 \times 10^{+0}$	
1,1-Dichloroethane	75-34-3	5.7×10^{-3}	
Diesel exhaust [B]	NA	$1.1 \times 10^{+0}$	
Diethylhexylphthalate	117-81-7	8.4×10^{-3}	8.4×10^{-3}
p-Dimethylaminoazobenzene	60-11-7	$4.6 \times 10^{+0}$	
7,12-Dimethylbenz[*a*]anthracene [BaP]	57-97-6	$2.5 \times 10^{+2}$	$2.5 \times 10^{+2}$
1,6-Dinitropyrene [BaP]	42397-64-8	$3.9 \times 10^{+1}$	$1.2 \times 10^{+2}$
1,8-Dinitropyrene [BaP]	42397-65-9	$3.9 \times 10^{+0}$	$1.2 \times 10^{+1}$
2,4-Dinitrotoluene	121-14-2	3.1×10^{-1}	
1,4-Dioxane	123-91-1	2.7×10^{-2}	
Epichlorohydrin	106-89-8	8.0×10^{-2}	
Ethyl benzene	100-41-4	8.7×10^{-3}	1.1×10^{-2}
Ethylene dibromide	106-93-4	2.5×10^{-1}	
Ethylene dichloride	107-06-2	7.2×10^{-2}	
Ethylene oxide	75-21-8	3.1×10^{-1}	

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Table 6.3 Chronic Inhalation Reference Exposure Levels (RELs) and Chronic Hazard Index Target Organ System(s)

Substance	Chemical Abstract Service Number (CAS)	Chronic Inhalation REL $(\mu g/m^3)$	Chronic Inhalation Hazard Index Target Organ System(s)
Chlorinated Dibenzofurans [b]			
2,3,7,8-Tetrachlorodibenzofuran [b]	5120-73-19	4.0×10^{-4}	Alimentary System (Liver); Development; Endocrine System; Hematologic System; Reproductive System; Respiratory System
1,2,3,7,8-Pentachlorodibenzofuran [b]	57117-41-6	1.3×10^{-3}	
2,3,4,7,8-Pentachlorodibenzofuran [b]	57117-31-4	1.3×10^{-4}	
1,2,3,4,7,8-Hexachlorodibenzofuran [b]	70648-26-9	4.0×10^{-4}	
1,2,3,6,7,8-Hexachlorodibenzofuran [b]	57117-44-9	4.0×10^{-4}	
1,2,3,7,8,9-Hexachlorodibenzofuran [b]	72918-21-9	4.0×10^{-4}	
2,3,4,6,7,8-Hexachlorodibenzofuran [b]	60851-34-5	4.0×10^{-4}	
1,2,3,4,6,7,8-Heptachlorodibenzofuran [b]	67562-39-4	4.0×10^{-3}	
1,2,3,4,7,8,9-Heptachlorodibenzofuran [b]	55673-89-7	4.0×10^{-3}	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran [b]	39001-02-0	1.3×10^{-1}	
Chlorobenzene	108-90-7	$1.0 \times 10^{+3}$	Alimentary System (Liver); Kidney; Reproductive System
Chloroform	67-66-3	$3.0 \times 10^{+2}$	Alimentary System (Liver); Development; Kidney
Chloropicrin	76-06-2	4.0×10^{-1}	Respiratory System
Chromium VI & Soluble Chromium VI Compounds (except chromic trioxide)	18540-29-9	2.0×10^{-1}	Respiratory System
Chromic Trioxide (as chromic acid mist)	1333-82-0	2.0×10^{-3}	Respiratory System
Cresol Mixtures	1319-77-3	$6.0 \times 10^{+2}$	Nervous System
1,4-Dichlorobenzene	106-46-7	$8.0 \times 10^{+2}$	Alimentary System (Liver); Kidney; Nervous System; Respiratory System
1,1-Dichloroethylene (Vinylidene Chloride)	75-35-4	$7.0 \times 10^{+1}$	Alimentary System (Liver)
Diesel Exhaust [a]	N/A	$5.0 \times 10^{+0}$	Respiratory System
Diethanolamine	111-42-2	$3.0 \times 10^{+0}$	Hematologic System; Respiratory System
N,N-Dimethylformamide	68-12-2	$8.0 \times 10^{+1}$	Alimentary System (Liver); Respiratory System
1,4-Dioxane	123-91-1	$3.0 \times 10^{+3}$	Alimentary System (Liver); Cardiovascular System; Kidney
Epichlorohydrin	106-89-8	$3.0 \times 10^{+0}$	Eyes; Respiratory System
1,2-Epoxybutane	106-88-7	$2.0 \times 10^{+1}$	Cardiovascular System; Respiratory System
Ethylbenzene	100-41-4	$2.0 \times 10^{+3}$	Alimentary System (Liver); Kidney; Development; Endocrine System
Ethyl Chloride	75-00-3	$3.0 \times 10^{+4}$	Alimentary System (Liver); Development
Ethylene Dibromide	106-93-4	8.0×10^{-1}	Reproductive System
Ethylene Dichloride	107-06-2	$4.0 \times 10^{+2}$	Alimentary System (Liver)
Ethylene Glycol	107-21-1	$4.0 \times 10^{+2}$	Development; Kidney; Respiratory System
Ethylene Glycol Monoethyl Ether	110-80-5	$7.0 \times 10^{+1}$	Hematologic System; Reproductive System
Ethylene Glycol Monoethyl Ether Acetate	111-15-9	$3.0 \times 10^{+2}$	Development

Table 8.3 Age Sensitivity Factors by Age Group for Cancer Risk Assessment

Age Group	Age Sensitivity Factor (unitless)
3rd Trimester	10
0<2 years	10
2<9 years	3
2<16 years	3
16<30 years	1
16-70 years	1

-

Table 8.4 Recommendations for Fraction of Time at Home (FAH) for Evaluating Residential Cancer Risk

Age Range	Fraction of Time at Residence
3rd Trimester, and 0<2 years	0.85[1]
2<16 years[2]	0.72[1]
16-70 years[3]	0.73

[1] Use FAH = 1 if a school is within the 1×10^{-6} (or greater) cancer risk isopleth

Table 5.6 Point Estimates of Residential Daily Breathing Rates for 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years (L/kg BW-day)

	3rd Trimester[a]	0<2 years	2<9 years	2<16 years	16<30 years	16<70 years
	L/kg-day					
Mean	225	658	535	452	210	185
95th Percentile	361	1090	861	745	335	290

[a] 3rd trimester **breathing rates** based on breathing rates of pregnant women using the assumption that the dose to the fetus during the 3rd trimester is the same as that to the mother.

Platinum Trucking - Offsite Operational Dust Emissions
AERSCREEN 21112 / AERMOD 21112 3/11/2022
15:11:17

TITLE: Platinum Trucking - Roadway

*************************** AREA PARAMETERS ****************************

SOURCE EMISSION RATE: 1.0000 g/s 7.937 lb/hr

AREA EMISSION RATE: 0.184E-02 g/(s-m2) 0.146E-01 lb/(hr-m2)
AREA HEIGHT: 2.55 meters 8.37 feet
AREA SOURCE LONG SIDE: 40.92 meters 134.25 feet
AREA SOURCE SHORT SIDE: 13.25 meters 43.47 feet
INITIAL VERTICAL DIMENSION: 2.37 meters 7.78 feet
RURAL OR URBAN: RURAL

FLAGPOLE RECEPTOR HEIGHT: 1.80 meters 5.91 feet

INITIAL PROBE DISTANCE = 5000. meters 16404. feet

************************ BUILDING DOWNWASH PARAMETERS ******************

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

************************* FLOW SECTOR ANALYSIS ***************************
25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR

Zo SURFA	CE 1-HR CONC RA	DIAL DIST TEMPO	RAL
SECTOR ROUGH	NESS (ug/m3) (	deg) (m) PERI	OD
----------------	------------------	------------------	-
1* 0.0	10 0.3363E+05	0 25.0 WIN	
* = worst case dia	gonal		

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****************** **** MAKEMET METE OROLOGY PARAMETERS *********************
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MIN/MAX TEMPERATUR E: 250.0 / 310. 0 (K)

MINIMUM WIND SPEED : 0.5 m/s

ANEMOMETER HEIGHT: 10.000 meters

SURFACE CHARACTERI STICS INPUT: AERME T SEASONAL TABLES

DOMINANT SURFACE P ROFILE: Cultivated Land
DOMINANT CLIMATE T YPE: Dry Condit ions
DOMINANT SEASON: Winter

ALBEDO: 0.6
BOWEN RATIO: 2
ROUGHNESS LENGTH: 0.010 (meter s)

SURFACE FRICTION V ELOCITY (U*) ADJUS TED

METEOROLOGY CONDITIONS USED T O PREDICT OVERALL MAXIMUM IMPACT
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YR MO DY JDY HR
-- -- -- --- --
10 01 07 7 01 0

H0 U*	W* DT/DZ ZICNV ZI	MCH M-O LEN Z0	BOWEN ALBEDO REF WS
- - - - - - - - -	- - - - - - - - -	- - - - - - - - -	- - - - - - - - - - -
-0.12 0.026 -9.0	00 0.020 -999.	10. 11.0 0.010	2.00 0.60 0.50

HT REF TA	HT	
- - - - - - - - -	- -	
10.0 250.0		2

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******************	****** AERSCREEN A	UTOMATED DISTANCES	**********************
	OVERALL MAXIMUM CO	NCENTRATIONS BY DI	STANCE
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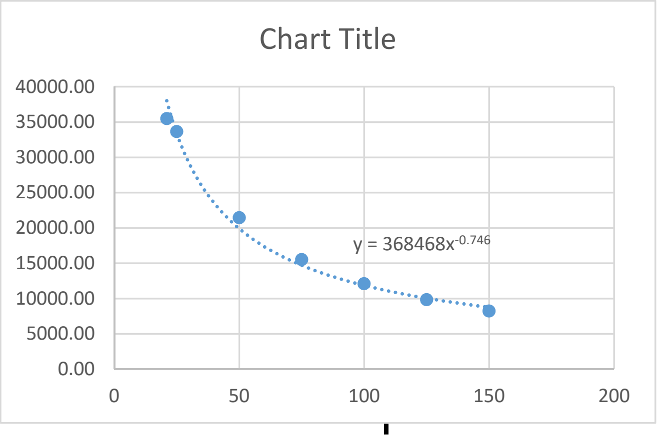
DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)		
---------	------------	---------	------------		
1	21730.00	2525	308	21	35470.00
25	33630.00	2550	305.9	25	33630
50	21430.00	2575	303.8	50	21430
75	15510.00	2600	301.7	75	15510
100	12090.00	2625	299.7	100	12090
125	9829.00	2650	297.7	125	9829
150	8228.00	2675	295.8	150	8228
175	7030.00	2700	293.9		
200	6106.00	2725	292		
225	5376	2750	290.1		
250	4785	2775	288.3		
275	4296	2800	286.5		
300	3884	2825	284.7		
325	3536	2850	282.9		
350	3238	2875	281.2		
375	2982	2900	279.5		
400	2768	2925	Mobile Off-Site Fugitive Dust (AP 42)		
425	2571	2950	276.2		
450	2396	2975	274.6		
475	2242	3000	273		



500	2103	3025	271.4
525	1979	3050	269.8
550	1867	3075	268.3
575	1765	3100	266.8
600	1672	3125	265.3
625	1588	3150	263.8
649.99	1511	3175	262.3
675	1439	3200	260.9
700	1374	3225	259.5
725	1313	3250	258.1
749.99	1257	3275	256.7
775	1205	3300	255.3
800	1157	3325	254
825	1112	3350	252.7
850	1070	3375	251.3
875	1030	3400	250
900	993	3425	248.8
925	958.2	3450	247.5
950	925.4	3475	246.3
975	894.6	3500	245
1000	865.4	3525	243.8
1025	837.9	3550	242.6
1050	811.9	3575	241.4
1075	787.2	3600	240.2
1100	763.8	3625	239.1
1125	741.5	3650	237.9
1150	720.4	3675	236.8
1175	700.3	3700	235.7
1200	681.1	3725	234.6
1225	662.9	3750	233.5
1250	645.4	3775	232.4
1275	628.8	3800	231.3
1300	612.9	3825	230.2
1325	597.6	3849.99	229.2
1350	583	3875	228.2
1375	569	3900	227.1
1400	555.6	3925	226.1
1425	542.7	3950	225.1
1450	530.3	3975	224.1
1475	518.5	4000	223.1

1500	507	4025	222.2
1525	496	4050	221.2
1550	485.4	4075	220.3
1575	475.2	4100	219.3
1600	465.4	4125	218.4
1625	455.9	4150	217.5
1650	446.7	4175	216.6
1675	437.8	4200	215.7
1700	429.3	4225	214.8
1725	421	4250	213.9
1750	413	4275	213
1775	405.3	4300	212.1
1800	397.8	4325	211.3
1825	390.5	4350	210.4
1850	383.5	4375	209.6
1875	379.4	4400	208.7
1900	375.9	4425	207.9
1925	372.4	4450	207.1
1950	369.1	4475	206.3
1975	365.8	4500	205.5
2000	362.6	4525	204.7
2025	359.5	4550	203.9
2050	356.4	4575	203.1
2075	353.4	4600	202.3
2100	350.4	4625	201.6
2125	347.5	4650	200.8
2150	344.7	4675	200.1
2175	341.9	4700	199.3
2200	339.2	4725	198.6
2225	336.5	4750	197.8
2250	333.9	4775	197.1
2275	331.3	4800	196.4
2300	328.8	4825	195.7
2325	326.3	4850	195
2350	323.9	4875	194.3
2375	321.5	4900	193.6
2400	319.1	4925	192.9
2425	316.8	4950	192.2
2450	314.5	4975	191.5
2475	312.3	5000	190.9

	2500		310.1	
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******************	**** AERSCREEN MA	XIMUM IMPACT SUMMA	RY *********************	
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3-hour, 8-hour, an	d 24-hour scaled			
concentrations are	equal to the 1-ho	ur concentration a	s referenced in	
SCREENING PROCEDUR	ES FOR ESTIMATING	THE AIR QUALITY		
IMPACT OF STATIONA	RY SOURCES, REVISE	D (Section 4.5.4)		
Report number EPA-	454/R-92-019			
http://www.epa.gov	/scram001/guidance	_permit.htm		
under Screening Gu	idance			
	MAXIMUM SC	ALED SCALED	SCALED SCALED	
	1-HOUR 3-	HOUR 8-HOUR	24-HOUR ANNUAL	
CALCULATION	CONC C	ONC CONC	CONC CONC	
PROCEDURE	(ug/m3) (ug	/m3) (ug/m3)	(ug/m3) (ug/m3)	
---------------	---------- -----	----- ----------	---------- ----------	
FLAT TERRAIN	0.3547E+05 0.354	7E+05 0.3547E+05	0.3547E+05 N/A	
DISTANCE FROM SOUR	CE 21.00 m	eters		
IMPACT AT THE				
AMBIENT BOUNDARY	0.2173E+05 0.217	3E+05 0.2173E+05	0.2173E+05 N/A	
DISTANCE FROM SOUR	CE 1.00 m	eters		

Platinum Trucking - Offsite Operational Dust Emissions
AERSCREEN 21112 / AERMOD 21112 3/11/2022
16:00:02

TITLE: Platinum Tr ucking - Project S ite

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****************** ************ AREA PARAMETERS ***** ***********************
------------------ ------------------ ------------------ -----------------------

SOURCE EMISSION RA TE: 1.0 000 g/s 7.937 lb/hr

AREA EMISSION RATE : 0.307E -04 g/(s-m2) 0.244E-03 lb/(hr-m2)
AREA HEIGHT: 2 .55 meters 8.37 feet
AREA SOURCE LONG S IDE: 201 .12 meters 659.84 feet
AREA SOURCE SHORT SIDE: 161 .71 meters 530.54 feet
INITIAL VERTICAL D IMENSION: 2 .37 meters 7.78 feet
RURAL OR URBAN: RU RAL

FLAGPOLE RECEPTOR HEIGHT: 1 .80 meters 5.91 feet

INITIAL PROBE DIST ANCE = 50 00. meters 16404. feet

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****************** ***** BUILDING DO WNWASH PARAMETERS **********************
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BUI LDING DOWNWASH NOT USED FOR NON-POIN T SOURCES

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******************	******** FLOW SEC	TOR ANALYSIS ****	***********************
	2 5 meter receptor s	pacing: 1. meters	- 5000. meters
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MAXIMUM IMPACT RECEPTOR

Zo SURFA	CE 1-HR CONC RA	DIAL DIST TEMPO	RAL
SECTOR ROUGH	NESS (ug/m3) (	deg) (m) PERI	OD
----------------	------------------	------------------	-
1* 0.0	10 3551.	40 125.0 WIN	
* = worst case dia	gonal		

------------------	------------------	------------------	-----------------------
******************	**** MAKEMET METE	OROLOGY PARAMETERS	********************
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MIN/MAX TEMPERATUR E: 250.0 / 310. 0 (K)

MINIMUM WIND SPEED : 0.5 m/s

ANEMOMETER HEIGHT: 10.000 meters

SURFACE CHARACTERI STICS INPUT: AERME T SEASONAL TABLES

DOMINANT SURFACE P ROFILE: Cultivated Land
DOMINANT CLIMATE T YPE: Dry Condit ions
DOMINANT SEASON: Winter

ALBEDO: 0.6
BOWEN RATIO: 2
ROUGHNESS LENGTH: 0.010 (meter s)

SURFACE FRICTION V ELOCITY (U*) ADJUS TED

METEOROLOGY CONDITIONS USED T O PREDICT OVERALL MAXIMUM IMPACT
----------- ------------------ ------------------ --------------

YR MO DY JDY HR
-- -- -- --- --
10 01 07 7 01 0

H0 U* W* DT/DZ ZICNV ZI MCH M-O LEN Z0 BOWEN ALBEDO REF WS
- -
-0.12 0.026 -9.0 00 0.020 -999. 10. 11.0 0.010 2.00 0.60 0.50

HT REF TA HT
- - - - - - - - - - -
10.0 250.0 2

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****************** ****** AERSCREEN A UTOMATED DISTANCES *********************
OVERALL MAXIMUM CO NCENTRATIONS BY DI STANCE
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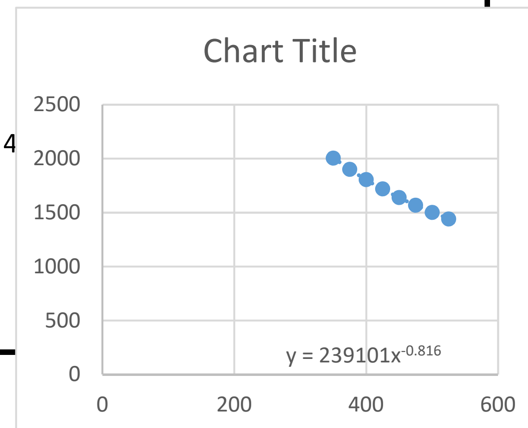
DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1	1992	2525	308.1
25	2325	2550	305.9
50	2656	2575	303.9
75	2973	2600	301.8
100.01	3276	2625	299.8

125	3551	2650	297.8
150	3374	2675	295.9
175	3133	2700	293.9
200	2926	2725	292
225	2738	2750	290.2
250	2562	2775	288.4
275	2403	2800	286.5
300	2256	2825	284.8
325	2124	2850	283
350	2006	2875	281.3
375	1902	2900	279.6
400	1807	2925	Mobile Off-Site Fugitive Dust (AP 4
425	1720	2950	276.3
450	1641	2975	274.6
475	1569	3000	273
500	1503	3025	271.4
525	1442	3050	269.9
550	1384	3075	268.4
575	1330	3100	266.8
600	1278	3125	265.3
625	1230	3150	263.9
650	1184	3175	262.4
675	1141	3200	261
700	1101	3225	259.5
725	1062	3250	258.1
750	1026	3275	256.8
775	992.3	3300	255.4
800	959.5	3325	254.1
825	928.6	3350	252.7
850	899.6	3375	251.4
875	872.4	3400	250.1
900	845.6	3425	248.8
925	820.4	3450	247.6
950.01	796.5	3475	246.3
975	773.9	3500	245.1



1000	752.5	3525	243.9
1025	731.8	3550	242.7
1050	711.9	3575	241.5
1075	692.9	3600	240.3
1100	674.8	3625	239.1
1125	657.6	3650	238
1150	641.2	3675	236.9
1175	625.3	3700	235.7
1200	610	3725	234.6
1225	595.5	3750	233.5
1250	581.4	3775	232.4
1275	567.9	3800	231.4
1300	555	3825	230.3
1325	542.5	3850	229.3
1350	530.6	3875	228.2
1375	519	3900	227.2
1400	507.8	3925	226.2
1425	497	3950	225.2
1450	486.7	3975	224.2
1475	476.8	4000	223.2
1500	467.2	4025	222.2
1525	457.8	4050	221.3
1550	448.8	4075	220.3
1575	440.1	4100	219.4
1600	431.7	4125	218.5
1625	423.6	4150	217.5
1650	415.6	4175	216.6
1675	410.7	4200	215.7
1700	406.4	4225	214.8
1725	402.3	4250	213.9
1750	398.3	4275	213.1
1775	394.3	4300	212.2
1800	390.5	4325	211.3
1824.99	386.7	4350	210.5
1850	383.1	4375	209.6

1875	379.5	4400	208.8
1900	376	4425	208
1925	372.5	4450	207.2
1950	369.2	4475	206.3
1975	365.9	4500	205.5
2000	362.7	4525	204.7
2025	359.6	4550	204
2050	356.5	4575	203.2
2075	353.5	4600	202.4
2100	350.5	4625	201.6
2125	347.6	4650	200.9
2150	344.8	4675	200.1
2175	342	4700	199.4
2200	339.3	4725	198.6
2225	336.6	4750	197.9
2250	334	4775	197.2
2275	331.4	4800	196.5
2300	328.9	4825	195.7
2325	326.4	4850	195
2350	324	4875	194.3
2375	321.6	4900	193.6
2399.99	319.2	4925	193
2425	316.9	4950	192.3
2450	314.6	4975	191.6
2475	312.4	5000	190.9
2500	310.2		

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***************** **** AERSCREEN MA XIMUM IMPACT SUMMA RY ********************

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3-hour, 8-hour, an d 24-hour scaled
concentrations are equal to the 1-ho ur concentration a s referenced in

SCREENING PROCEDUR ES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONA RY SOURCES, REVISE D (Section 4.5.4)
Report number EPA- 454/R-92-019
http://www.epa.gov /scram001/guidance _permit.htm
under Screening Gu idance

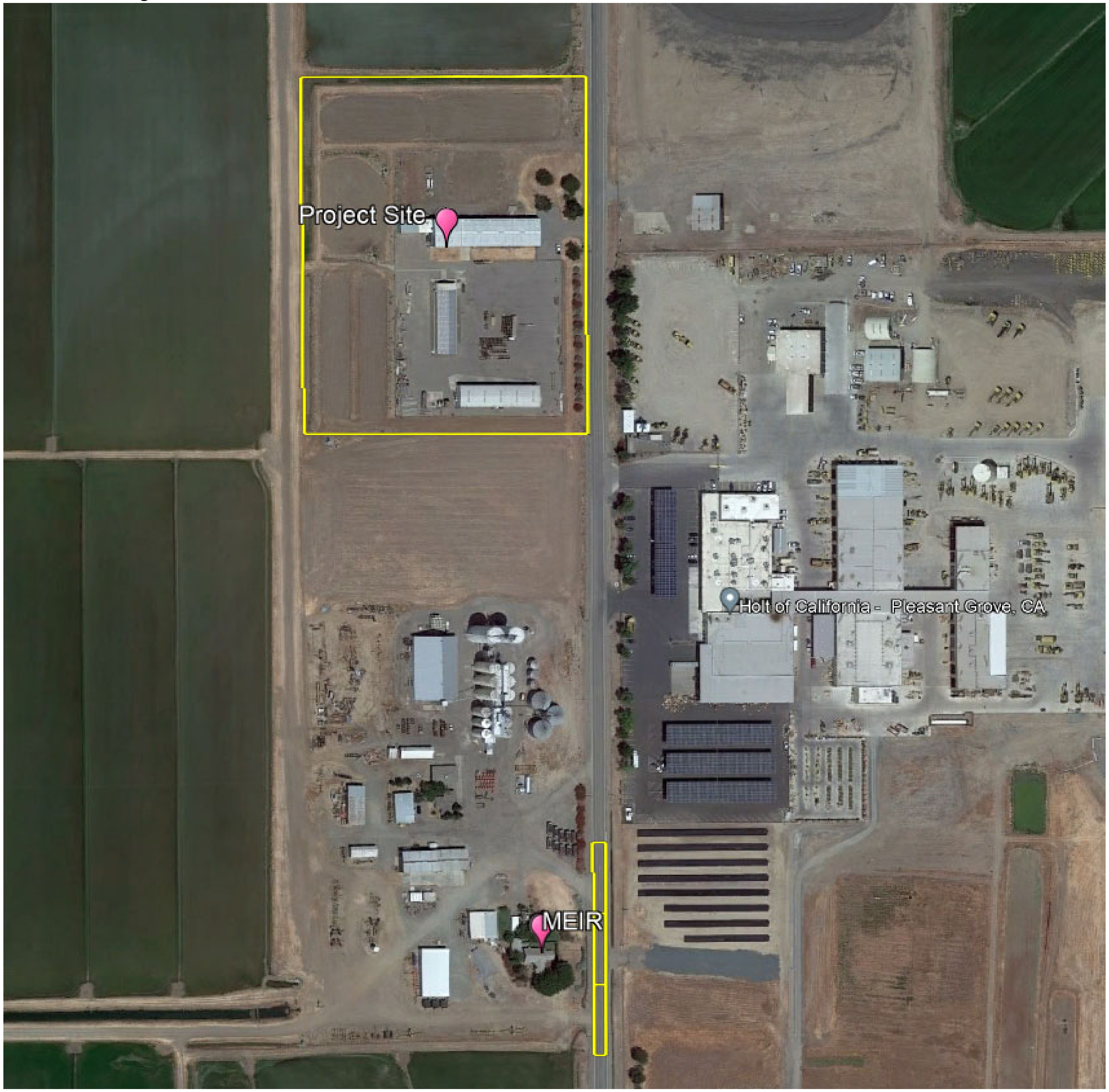
CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
---------------	----------	----------	----------	----------	----------
FLAT TERRAIN	3558.	3558.	3558.	3558.	N/A

DISTANCE FROM SOURCE 126.00 meters

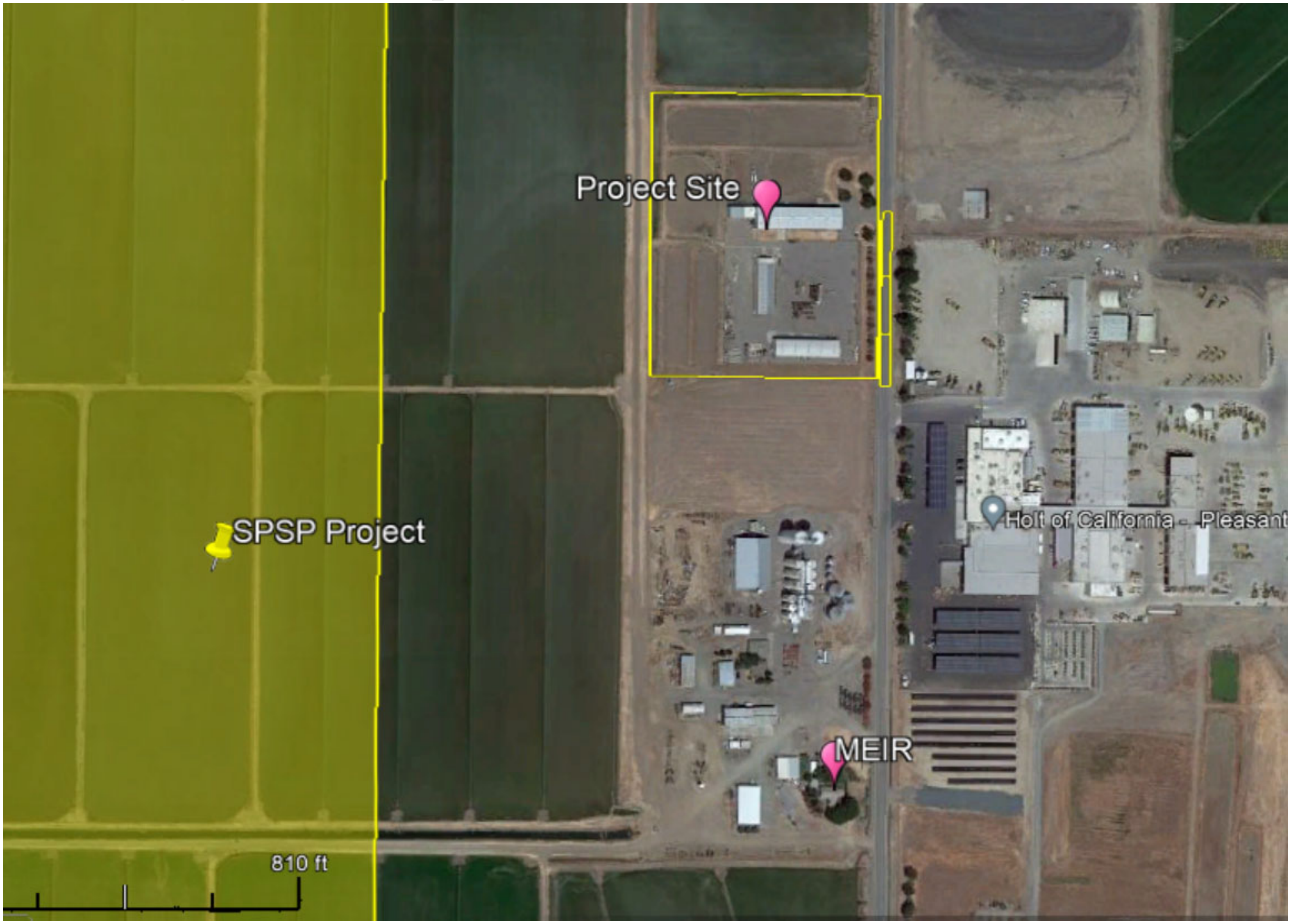
IMPACT AT THE AMBIENT BOUNDARY	1992.	1992.	1992.	1992.	N/A

DISTANCE FROM SOURCE 1.00 meters

Platinum Trucking - Area Sources Modeled



Platinum Trucking - Area Sources Modeled_SPSP



Platinum Trucking _ Construction

Sutter County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	8.33	Acre	8.33	362,854.80	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	61
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	2.68	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E GHG emission factor based on https://www.pgecorp.com/corp_responsibility/reports/2021/assets/PGE_CRSR_2021.pdf

Land Use -

Construction Phase - Construction schedule provided by client

Off-road Equipment - Equipment list provided by project engineer

Off-road Equipment - No bldg construction

Off-road Equipment - Equipment list provided by engineer

Off-road Equipment - Equipment list provided by project engineer

Off-road Equipment - Equipment list provided by project engineer

Off-road Equipment - Equipment list provided by project engineer

Trips and VMT - No bldg cons; worker trips provided by client; vendor trips for water truck, equipment mob and demob

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

Demolition -

Grading -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	3.00
tblConstructionPhase	NumDays	10.00	4.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialImported	0.00	2,930.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	8.00	1.00

tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripLength	6.60	0.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	59.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	152.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00
tblTripsAndVMT	WorkerTripNumber	30.00	10.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1610	0.2641	0.2158	5.6000e-004	0.0183	0.0104	0.0287	3.0500e-003	9.7600e-003	0.0128	0.0000	50.3792	50.3792	9.5000e-003	2.0300e-003	51.2226
Maximum	**0.1610**	**0.2641**	**0.2158**	**5.6000e-004**	**0.0183**	**0.0104**	**0.0287**	**3.0500e-003**	**9.7600e-003**	**0.0128**	**0.0000**	**50.3792**	**50.3792**	**9.5000e-003**	**2.0300e-003**	**51.2226**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1610	0.2641	0.2158	5.6000e-004	0.0115	0.0104	0.0219	2.2500e-003	9.7600e-003	0.0120	0.0000	50.3792	50.3792	9.5000e-003	2.0300e-003	51.2226
Maximum	**0.1610**	**0.2641**	**0.2158**	**5.6000e-004**	**0.0115**	**0.0104**	**0.0219**	**2.2500e-003**	**9.7600e-003**	**0.0120**	**0.0000**	**50.3792**	**50.3792**	**9.5000e-003**	**2.0300e-003**	**51.2226**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**37.37**	**0.00**	**23.83**	**26.23**	**0.00**	**6.17**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2022**	**8-31-2022**	0.3925	0.3925
		Highest	0.3925	0.3925

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0361	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.1544	0.1544	1.9000e-003	2.3000e-004	0.2706
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0361**	**0.0000**	**8.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1545**	**0.1545**	**1.9000e-003**	**2.3000e-004**	**0.2707**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0361	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.1544	0.1544	1.9000e-003	2.3000e-004	0.2706
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0361**	**0.0000**	**8.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1545**	**0.1545**	**1.9000e-003**	**2.3000e-004**	**0.2707**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/15/2022	6	13	
2	Site Preparation	Site Preparation	6/16/2022	6/20/2022	6	4	
3	Grading	Grading	6/21/2022	7/1/2022	6	10	

4	Building Construction	Building Construction	7/1/2022	6/30/2022	6	0	
5	Paving	Paving	7/5/2022	7/7/2022	6	3	
6	Architectural Coating	Architectural Coating	7/11/2022	7/15/2022	6	5	

Acres of Grading (Site Preparation Phase): 4

Acres of Grading (Grading Phase): 15

Acres of Paving: 8.33

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 21,771 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.00	81	0.73
Demolition	Generator Sets	1	6.00	84	0.74
Demolition	Scrapers	1	8.00	367	0.48
Demolition	Sweepers/Scrubbers	1	4.00	64	0.46
Site Preparation	Generator Sets	1	6.00	84	0.74
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Sweepers/Scrubbers	1	4.00	64	0.46
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Grading	Excavators	1	6.00	158	0.38
Grading	Generator Sets	1	6.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Grading	Scrapers	1	8.00	367	0.48
Grading	Sweepers/Scrubbers	1	4.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Cranes	0	0.00	231	0.29
Building Construction	Forklifts	0	0.00	89	0.20
Building Construction	Generator Sets	0	0.00	84	0.74

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

Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Welders	0	0.00	46	0.45
Paving	Cement and Mortar Mixers	1	4.00	9	0.56
Paving	Generator Sets	1	6.00	84	0.74
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Sweepers/Scrubbers	1	4.00	64	0.46
Architectural Coating	Air Compressors	1	2.00	78	0.48
Architectural Coating	Generator Sets	1	6.00	84	0.74
Architectural Coating	Sweepers/Scrubbers	1	4.00	64	0.46

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	5.00	20.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	10.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	10.00	2.00	366.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	10.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	3	10.00	10.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.2100e-003	0.0000	2.2100e-003	3.4000e-004	0.0000	3.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8500e-003	0.0805	0.0686	1.4000e-004		3.5000e-003	3.5000e-003		3.2900e-003	3.2900e-003	0.0000	12.5879	12.5879	3.1900e-003	0.0000	12.6678
Total	**7.8500e-003**	**0.0805**	**0.0686**	**1.4000e-004**	**2.2100e-003**	**3.5000e-003**	**5.7100e-003**	**3.4000e-004**	**3.2900e-003**	**3.6300e-003**	**0.0000**	**12.5879**	**12.5879**	**3.1900e-003**	**0.0000**	**12.6678**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.4900e-003	3.1000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.5861	0.5861	0.0000	9.0000e-005	0.6136
Vendor	7.0000e-005	1.6600e-003	5.2000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.1000e-004	6.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.5908	0.5908	0.0000	9.0000e-005	0.6178
Worker	2.7000e-004	2.1000e-004	2.4700e-003	1.0000e-005	8.0000e-004	0.0000	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6310	0.6310	2.0000e-005	2.0000e-005	0.6367
Total	**3.8000e-004**	**3.3600e-003**	**3.3000e-003**	**3.0000e-005**	**1.1600e-003**	**3.0000e-005**	**1.1900e-003**	**3.2000e-004**	**3.0000e-005**	**3.5000e-004**	**0.0000**	**1.8079**	**1.8079**	**2.0000e-005**	**2.0000e-004**	**1.8681**

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-003	0.0000	1.0000e-003	1.5000e-004	0.0000	1.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8500e-003	0.0805	0.0686	1.4000e-004		3.5000e-003	3.5000e-003		3.2900e-003	3.2900e-003	0.0000	12.5879	12.5879	3.1900e-003	0.0000	12.6678
Total	**7.8500e-003**	**0.0805**	**0.0686**	**1.4000e-004**	**1.0000e-003**	**3.5000e-003**	**4.5000e-003**	**1.5000e-004**	**3.2900e-003**	**3.4400e-003**	**0.0000**	**12.5879**	**12.5879**	**3.1900e-003**	**0.0000**	**12.6678**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.4900e-003	3.1000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.5861	0.5861	0.0000	9.0000e-005	0.6136
Vendor	7.0000e-005	1.6600e-003	5.2000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.1000e-004	6.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.5908	0.5908	0.0000	9.0000e-005	0.6178
Worker	2.7000e-004	2.1000e-004	2.4700e-003	1.0000e-005	8.0000e-004	0.0000	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6310	0.6310	2.0000e-005	2.0000e-005	0.6367
Total	**3.8000e-004**	**3.3600e-003**	**3.3000e-003**	**3.0000e-005**	**1.1600e-003**	**3.0000e-005**	**1.1900e-003**	**3.2000e-004**	**3.0000e-005**	**3.5000e-004**	**0.0000**	**1.8079**	**1.8079**	**2.0000e-005**	**2.0000e-004**	**1.8681**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.1200e-003	0.0000	2.1200e-003	2.3000e-004	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4900e-003	0.0258	0.0224	5.0000e-005		1.1300e-003	1.1300e-003		1.0600e-003	1.0600e-003	0.0000	4.0121	4.0121	1.0600e-003	0.0000	4.0387
Total	**2.4900e-003**	**0.0258**	**0.0224**	**5.0000e-005**	**2.1200e-003**	**1.1300e-003**	**3.2500e-003**	**2.3000e-004**	**1.0600e-003**	**1.2900e-003**	**0.0000**	**4.0121**	**4.0121**	**1.0600e-003**	**0.0000**	**4.0387**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	2.0000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0727	0.0727	0.0000	1.0000e-005	0.0760
Worker	8.0000e-005	6.0000e-005	7.6000e-004	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.1942	0.1942	1.0000e-005	1.0000e-005	0.1959
Total	**9.0000e-005**	**2.6000e-004**	**8.2000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2669**	**0.2669**	**1.0000e-005**	**2.0000e-005**	**0.2720**

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.5000e-004	0.0000	9.5000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4900e-003	0.0258	0.0224	5.0000e-005		1.1300e-003	1.1300e-003		1.0600e-003	1.0600e-003	0.0000	4.0121	4.0121	1.0600e-003	0.0000	4.0387
Total	**2.4900e-003**	**0.0258**	**0.0224**	**5.0000e-005**	**9.5000e-004**	**1.1300e-003**	**2.0800e-003**	**1.0000e-004**	**1.0600e-003**	**1.1600e-003**	**0.0000**	**4.0121**	**4.0121**	**1.0600e-003**	**0.0000**	**4.0387**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	2.0000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0727	0.0727	0.0000	1.0000e-005	0.0760
Worker	8.0000e-005	6.0000e-005	7.6000e-004	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.1942	0.1942	1.0000e-005	1.0000e-005	0.1959
Total	**9.0000e-005**	**2.6000e-004**	**8.2000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2669**	**0.2669**	**1.0000e-005**	**2.0000e-005**	**0.2720**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.1200e-003	0.0000	8.1200e-003	8.8000e-004	0.0000	8.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0600e-003	0.0974	0.0769	1.7000e-004		3.9800e-003	3.9800e-003		3.7100e-003	3.7100e-003	0.0000	14.6400	14.6400	4.1500e-003	0.0000	14.7438
Total	**9.0600e-003**	**0.0974**	**0.0769**	**1.7000e-004**	**8.1200e-003**	**3.9800e-003**	**0.0121**	**8.8000e-004**	**3.7100e-003**	**4.5900e-003**	**0.0000**	**14.6400**	**14.6400**	**4.1500e-003**	**0.0000**	**14.7438**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.7000e-004	0.0272	5.6800e-003	1.1000e-004	3.1100e-003	2.7000e-004	3.3800e-003	8.5000e-004	2.6000e-004	1.1200e-003	0.0000	10.7259	10.7259	3.0000e-005	1.6900e-003	11.2290
Vendor	2.0000e-005	5.1000e-004	1.6000e-004	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1818	0.1818	0.0000	3.0000e-005	0.1901
Worker	2.1000e-004	1.6000e-004	1.9000e-003	1.0000e-005	6.2000e-004	0.0000	6.2000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.4854	0.4854	1.0000e-005	1.0000e-005	0.4898
Total	**9.0000e-004**	**0.0279**	**7.7400e-003**	**1.2000e-004**	**3.7900e-003**	**2.8000e-004**	**4.0700e-003**	**1.0300e-003**	**2.7000e-004**	**1.3100e-003**	**0.0000**	**11.3931**	**11.3931**	**4.0000e-005**	**1.7300e-003**	**11.9089**

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.6500e-003	0.0000	3.6500e-003	4.0000e-004	0.0000	4.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0600e-003	0.0974	0.0769	1.7000e-004		3.9800e-003	3.9800e-003		3.7100e-003	3.7100e-003	0.0000	14.6400	14.6400	4.1500e-003	0.0000	14.7437
Total	**9.0600e-003**	**0.0974**	**0.0769**	**1.7000e-004**	**3.6500e-003**	**3.9800e-003**	**7.6300e-003**	**4.0000e-004**	**3.7100e-003**	**4.1100e-003**	**0.0000**	**14.6400**	**14.6400**	**4.1500e-003**	**0.0000**	**14.7437**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.7000e-004	0.0272	5.6800e-003	1.1000e-004	3.1100e-003	2.7000e-004	3.3800e-003	8.5000e-004	2.6000e-004	1.1200e-003	0.0000	10.7259	10.7259	3.0000e-005	1.6900e-003	11.2290
Vendor	2.0000e-005	5.1000e-004	1.6000e-004	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1818	0.1818	0.0000	3.0000e-005	0.1901
Worker	2.1000e-004	1.6000e-004	1.9000e-003	1.0000e-005	6.2000e-004	0.0000	6.2000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.4854	0.4854	1.0000e-005	1.0000e-005	0.4898
Total	**9.0000e-004**	**0.0279**	**7.7400e-003**	**1.2000e-004**	**3.7900e-003**	**2.8000e-004**	**4.0700e-003**	**1.0300e-003**	**2.7000e-004**	**1.3100e-003**	**0.0000**	**11.3931**	**11.3931**	**4.0000e-005**	**1.7300e-003**	**11.9089**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9000e-003	0.0185	0.0234	4.0000e-005		9.7000e-004	9.7000e-004		9.1000e-004	9.1000e-004	0.0000	3.2224	3.2224	8.6000e-004	0.0000	3.2438
Paving	0.0109					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0128**	**0.0185**	**0.0234**	**4.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**3.2224**	**3.2224**	**8.6000e-004**	**0.0000**	**3.2438**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	1.5000e-004	5.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0545	0.0545	0.0000	1.0000e-005	0.0570
Worker	6.0000e-005	5.0000e-005	5.7000e-004	0.0000	1.8000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1456	0.1456	0.0000	0.0000	0.1469
Total	**7.0000e-005**	**2.0000e-004**	**6.2000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.1000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2002**	**0.2002**	**0.0000**	**1.0000e-005**	**0.2040**

3.6 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9000e-003	0.0185	0.0234	4.0000e-005		9.7000e-004	9.7000e-004		9.1000e-004	9.1000e-004	0.0000	3.2224	3.2224	8.6000e-004	0.0000	3.2438
Paving	0.0109					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0128**	**0.0185**	**0.0234**	**4.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**3.2224**	**3.2224**	**8.6000e-004**	**0.0000**	**3.2438**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	1.5000e-004	5.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0545	0.0545	0.0000	1.0000e-005	0.0570
Worker	6.0000e-005	5.0000e-005	5.7000e-004	0.0000	1.8000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1456	0.1456	0.0000	0.0000	0.1469
Total	**7.0000e-005**	**2.0000e-004**	**6.2000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.1000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2002**	**0.2002**	**0.0000**	**1.0000e-005**	**0.2040**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1261					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0300e-003	8.9200e-003	0.0108	2.0000e-005		4.9000e-004	4.9000e-004		4.8000e-004	4.8000e-004	0.0000	1.5517	1.5517	1.5000e-004	0.0000	1.5556
Total	**0.1272**	**8.9200e-003**	**0.0108**	**2.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.8000e-004**	**4.8000e-004**	**0.0000**	**1.5517**	**1.5517**	**1.5000e-004**	**0.0000**	**1.5556**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	1.2700e-003	4.0000e-004	0.0000	1.5000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.4545	0.4545	0.0000	7.0000e-005	0.4752
Worker	1.0000e-004	8.0000e-005	9.5000e-004	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2427	0.2427	1.0000e-005	1.0000e-005	0.2449
Total	**1.5000e-004**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**1.2000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.6972**	**0.6972**	**1.0000e-005**	**8.0000e-005**	**0.7201**

3.7 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1261					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0300e-003	8.9200e-003	0.0108	2.0000e-005		4.9000e-004	4.9000e-004		4.8000e-004	4.8000e-004	0.0000	1.5517	1.5517	1.5000e-004	0.0000	1.5556
Total	**0.1272**	**8.9200e-003**	**0.0108**	**2.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.8000e-004**	**4.8000e-004**	**0.0000**	**1.5517**	**1.5517**	**1.5000e-004**	**0.0000**	**1.5556**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	1.2700e-003	4.0000e-004	0.0000	1.5000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.4545	0.4545	0.0000	7.0000e-005	0.4752
Worker	1.0000e-004	8.0000e-005	9.5000e-004	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2427	0.2427	1.0000e-005	1.0000e-005	0.2449
Total	**1.5000e-004**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**1.2000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.6972**	**0.6972**	**1.0000e-005**	**8.0000e-005**	**0.7201**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.499630	0.047553	0.173809	0.160741	0.040711	0.009075	0.015026	0.021805	0.000355	0.000000	0.025920	0.001425	0.003949

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.1544	0.1544	1.9000e-003	2.3000e-004	0.2706
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.1544	0.1544	1.9000e-003	2.3000e-004	0.2706
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	126999	0.1544	1.9000e-003	2.3000e-004	0.2706
Total		**0.1544**	**1.9000e-003**	**2.3000e-004**	**0.2706**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	126999	0.1544	1.9000e-003	2.3000e-004	0.2706
Total		**0.1544**	**1.9000e-003**	**2.3000e-004**	**0.2706**

6.0 Area Detail

6.1 Mitigation Measures Area

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0361	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004
Unmitigated	0.0361	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0126					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0235					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004
Total	**0.0361**	**0.0000**	**8.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.0000**	**1.6000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0126					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0235					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004
Total	**0.0361**	**0.0000**	**8.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.0000**	**1.6000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Platinum Trucking _ Construction

Sutter County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	8.33	Acre	8.33	362,854.80	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	61
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	2.68	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E GHG emission factor based on https://www.pgecorp.com/corp_responsibility/reports/2021/assets/PGE_CRSR_2021.pdf

Land Use -

Construction Phase - Construction schedule provided by client

Off-road Equipment - Equipment list provided by project engineer

Off-road Equipment - No bldg construction

Off-road Equipment - Equipment list provided by engineer

Off-road Equipment - Equipment list provided by project engineer

Off-road Equipment - Equipment list provided by project engineer

Off-road Equipment - Equipment list provided by project engineer

Trips and VMT - No bldg cons; worker trips provided by client; vendor trips for water truck, equipment mob and demob

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

Demolition -

Grading -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	3.00
tblConstructionPhase	NumDays	10.00	4.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialImported	0.00	2,930.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	8.00	1.00

tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripLength	6.60	0.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	59.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	152.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00
tblTripsAndVMT	WorkerTripNumber	30.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	50.9343	24.7199	16.9880	0.0573	2.4054	0.8528	3.2582	0.3901	0.7954	1.1856	0.0000	5,748.9349	5,748.9349	0.9243	0.3805	5,885.4282
Maximum	**50.9343**	**24.7199**	**16.9880**	**0.0573**	**2.4054**	**0.8528**	**3.2582**	**0.3901**	**0.7954**	**1.1856**	**0.0000**	**5,748.9349**	**5,748.9349**	**0.9243**	**0.3805**	**5,885.4282**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	50.9343	24.7199	16.9880	0.0573	1.5123	0.8528	2.3650	0.2929	0.7954	1.0883	0.0000	5,748.9349	5,748.9349	0.9243	0.3805	5,885.4282
Maximum	**50.9343**	**24.7199**	**16.9880**	**0.0573**	**1.5123**	**0.8528**	**2.3650**	**0.2929**	**0.7954**	**1.0883**	**0.0000**	**5,748.9349**	**5,748.9349**	**0.9243**	**0.3805**	**5,885.4282**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**37.13**	**0.00**	**27.41**	**24.92**	**0.00**	**8.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1977	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8200e-003	1.8200e-003	0.0000		1.9400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1977**	**1.0000e-005**	**8.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.8200e-003**	**1.8200e-003**	**0.0000**	**0.0000**	**1.9400e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1977	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8200e-003	1.8200e-003	0.0000		1.9400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1977**	**1.0000e-005**	**8.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.8200e-003**	**1.8200e-003**	**0.0000**	**0.0000**	**1.9400e-003**

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/15/2022	6	13	
2	Site Preparation	Site Preparation	6/16/2022	6/20/2022	6	4	
3	Grading	Grading	6/21/2022	7/1/2022	6	10	
4	Building Construction	Building Construction	7/1/2022	6/30/2022	6	0	
5	Paving	Paving	7/5/2022	7/7/2022	6	3	
6	Architectural Coating	Architectural Coating	7/11/2022	7/15/2022	6	5	

Acres of Grading (Site Preparation Phase): 4

Acres of Grading (Grading Phase): 15

Acres of Paving: 8.33

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 21,771 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.00	81	0.73
Demolition	Generator Sets	1	6.00	84	0.74
Demolition	Scrapers	1	8.00	367	0.48
Demolition	Sweepers/Scrubbers	1	4.00	64	0.46
Site Preparation	Generator Sets	1	6.00	84	0.74

Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Sweepers/Scrubbers	1	4.00	64	0.46
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Grading	Excavators	1	6.00	158	0.38
Grading	Generator Sets	1	6.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Grading	Scrapers	1	8.00	367	0.48
Grading	Sweepers/Scrubbers	1	4.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Cranes	0	0.00	231	0.29
Building Construction	Forklifts	0	0.00	89	0.20
Building Construction	Generator Sets	0	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Welders	0	0.00	46	0.45
Paving	Cement and Mortar Mixers	1	4.00	9	0.56
Paving	Generator Sets	1	6.00	84	0.74
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Sweepers/Scrubbers	1	4.00	64	0.46
Architectural Coating	Air Compressors	1	2.00	78	0.48
Architectural Coating	Generator Sets	1	6.00	84	0.74
Architectural Coating	Sweepers/Scrubbers	1	4.00	64	0.46

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	5.00	20.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

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

Site Preparation	4	10.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	10.00	2.00	366.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	10.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	3	10.00	10.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.0516	0.0000	0.0516			0.0000			0.0000
Off-Road	1.2081	12.3913	10.5493	0.0222		0.5383	0.5383		0.5056	0.5056		2,134.741 1	2,134.741 1	0.5416		2,148.280 5
Total	**1.2081**	**12.3913**	**10.5493**	**0.0222**	**0.3407**	**0.5383**	**0.8791**	**0.0516**	**0.5056**	**0.5572**		**2,134.741 1**	**2,134.741 1**	**0.5416**		**2,148.280 5**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.7800e-003	0.2154	0.0473	9.4000e-004	0.0270	2.3000e-003	0.0293	7.4000e-003	2.2000e-003	9.6000e-003		99.3596	99.3596	2.7000e-004	0.0156	104.0203
Vendor	0.0104	0.2411	0.0782	9.5000e-004	0.0307	2.7700e-003	0.0334	8.8300e-003	2.6500e-003	0.0115		100.1393	100.1393	5.1000e-004	0.0153	104.7088
Worker	0.0467	0.0293	0.4586	1.1600e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		117.5464	117.5464	2.7700e-003	2.8400e-003	118.4607
Total	**0.0629**	**0.4858**	**0.5841**	**3.0500e-003**	**0.1854**	**5.6700e-003**	**0.1910**	**0.0501**	**5.4000e-003**	**0.0555**		**317.0452**	**317.0452**	**3.5500e-003**	**0.0338**	**327.1898**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1533	0.0000	0.1533	0.0232	0.0000	0.0232			0.0000			0.0000
Off-Road	1.2081	12.3913	10.5493	0.0222		0.5383	0.5383		0.5056	0.5056	0.0000	2,134.7411	2,134.7411	0.5416		2,148.2805
Total	**1.2081**	**12.3913**	**10.5493**	**0.0222**	**0.1533**	**0.5383**	**0.6917**	**0.0232**	**0.5056**	**0.5288**	**0.0000**	**2,134.7411**	**2,134.7411**	**0.5416**		**2,148.2805**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.7800e-003	0.2154	0.0473	9.4000e-004	0.0270	2.3000e-003	0.0293	7.4000e-003	2.2000e-003	9.6000e-003		99.3596	99.3596	2.7000e-004	0.0156	104.0203
Vendor	0.0104	0.2411	0.0782	9.5000e-004	0.0307	2.7700e-003	0.0334	8.8300e-003	2.6500e-003	0.0115		100.1393	100.1393	5.1000e-004	0.0153	104.7088
Worker	0.0467	0.0293	0.4586	1.1600e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		117.5464	117.5464	2.7700e-003	2.8400e-003	118.4607
Total	**0.0629**	**0.4858**	**0.5841**	**3.0500e-003**	**0.1854**	**5.6700e-003**	**0.1910**	**0.0501**	**5.4000e-003**	**0.0555**		**317.0452**	**317.0452**	**3.5500e-003**	**0.0338**	**327.1898**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0605	0.0000	1.0605	0.1145	0.0000	0.1145			0.0000			0.0000
Off-Road	1.2458	12.8789	11.2102	0.0229		0.5646	0.5646		0.5283	0.5283		2,211.2775	2,211.2775	0.5863		2,225.9337
Total	**1.2458**	**12.8789**	**11.2102**	**0.0229**	**1.0605**	**0.5646**	**1.6251**	**0.1145**	**0.5283**	**0.6428**		**2,211.2775**	**2,211.2775**	**0.5863**		**2,225.9337**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1700e-003	0.0964	0.0313	3.8000e-004	0.0123	1.1100e-003	0.0134	3.5300e-003	1.0600e-003	4.5900e-003		40.0557	40.0557	2.0000e-004	6.1200e-003	41.8835
Worker	0.0467	0.0293	0.4586	1.1600e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		117.5464	117.5464	2.7700e-003	2.8400e-003	118.4607
Total	**0.0509**	**0.1258**	**0.4899**	**1.5400e-003**	**0.1400**	**1.7100e-003**	**0.1417**	**0.0374**	**1.6100e-003**	**0.0390**		**157.6021**	**157.6021**	**2.9700e-003**	**8.9600e-003**	**160.3443**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4772	0.0000	0.4772	0.0515	0.0000	0.0515			0.0000			0.0000
Off-Road	1.2458	12.8789	11.2102	0.0229		0.5646	0.5646		0.5283	0.5283	0.0000	2,211.2775	2,211.2775	0.5863		2,225.9337
Total	**1.2458**	**12.8789**	**11.2102**	**0.0229**	**0.4772**	**0.5646**	**1.0418**	**0.0515**	**0.5283**	**0.5798**	**0.0000**	**2,211.2775**	**2,211.2775**	**0.5863**		**2,225.9337**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1700e-003	0.0964	0.0313	3.8000e-004	0.0123	1.1100e-003	0.0134	3.5300e-003	1.0600e-003	4.5900e-003		40.0557	40.0557	2.0000e-004	6.1200e-003	41.8835
Worker	0.0467	0.0293	0.4586	1.1600e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		117.5464	117.5464	2.7700e-003	2.8400e-003	118.4607
Total	**0.0509**	**0.1258**	**0.4899**	**1.5400e-003**	**0.1400**	**1.7100e-003**	**0.1417**	**0.0374**	**1.6100e-003**	**0.0390**		**157.6021**	**157.6021**	**2.9700e-003**	**8.9600e-003**	**160.3443**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6239	0.0000	1.6239	0.1768	0.0000	0.1768			0.0000			0.0000
Off-Road	1.8126	19.4693	15.3733	0.0334		0.7963	0.7963		0.7414	0.7414		3,227.5679	3,227.5679	0.9149		3,250.4413
Total	**1.8126**	**19.4693**	**15.3733**	**0.0334**	**1.6239**	**0.7963**	**2.4201**	**0.1768**	**0.7414**	**0.9182**		**3,227.5679**	**3,227.5679**	**0.9149**		**3,250.4413**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1374	5.1249	1.1248	0.0223	0.6415	0.0548	0.6963	0.1760	0.0524	0.2284		2,363.7649	2,363.7649	6.3900e-003	0.3715	2,474.6427
Vendor	4.1700e-003	0.0964	0.0313	3.8000e-004	0.0123	1.1100e-003	0.0134	3.5300e-003	1.0600e-003	4.5900e-003		40.0557	40.0557	2.0000e-004	6.1200e-003	41.8835
Worker	0.0467	0.0293	0.4586	1.1600e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		117.5464	117.5464	2.7700e-003	2.8400e-003	118.4607
Total	**0.1883**	**5.2507**	**1.6146**	**0.0239**	**0.7815**	**0.0565**	**0.8380**	**0.2134**	**0.0541**	**0.2674**		**2,521.3670**	**2,521.3670**	**9.3600e-003**	**0.3805**	**2,634.9869**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7308	0.0000	0.7308	0.0796	0.0000	0.0796			0.0000			0.0000
Off-Road	1.8126	19.4693	15.3733	0.0334		0.7963	0.7963		0.7414	0.7414	0.0000	3,227.5679	3,227.5679	0.9149		3,250.4413
Total	**1.8126**	**19.4693**	**15.3733**	**0.0334**	**0.7308**	**0.7963**	**1.5270**	**0.0796**	**0.7414**	**0.8209**	**0.0000**	**3,227.5679**	**3,227.5679**	**0.9149**		**3,250.4413**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1374	5.1249	1.1248	0.0223	0.6415	0.0548	0.6963	0.1760	0.0524	0.2284		2,363.7649	2,363.7649	6.3900e-003	0.3715	2,474.6427
Vendor	4.1700e-003	0.0964	0.0313	3.8000e-004	0.0123	1.1100e-003	0.0134	3.5300e-003	1.0600e-003	4.5900e-003		40.0557	40.0557	2.0000e-004	6.1200e-003	41.8835
Worker	0.0467	0.0293	0.4586	1.1600e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		117.5464	117.5464	2.7700e-003	2.8400e-003	118.4607
Total	**0.1883**	**5.2507**	**1.6146**	**0.0239**	**0.7815**	**0.0565**	**0.8380**	**0.2134**	**0.0541**	**0.2674**		**2,521.3670**	**2,521.3670**	**9.3600e-003**	**0.3805**	**2,634.9869**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2695	12.3077	15.5663	0.0247		0.6458	0.6458		0.6035	0.6035		2,368.0247	2,368.0247	0.6314		2,383.8095
Paving	7.2749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.5444**	**12.3077**	**15.5663**	**0.0247**		**0.6458**	**0.6458**		**0.6035**	**0.6035**		**2,368.0247**	**2,368.0247**	**0.6314**		**2,383.8095**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1700e-003	0.0964	0.0313	3.8000e-004	0.0123	1.1100e-003	0.0134	3.5300e-003	1.0600e-003	4.5900e-003		40.0557	40.0557	2.0000e-004	6.1200e-003	41.8835
Worker	0.0467	0.0293	0.4586	1.1600e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		117.5464	117.5464	2.7700e-003	2.8400e-003	118.4607
Total	**0.0509**	**0.1258**	**0.4899**	**1.5400e-003**	**0.1400**	**1.7100e-003**	**0.1417**	**0.0374**	**1.6100e-003**	**0.0390**		**157.6021**	**157.6021**	**2.9700e-003**	**8.9600e-003**	**160.3443**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2695	12.3077	15.5663	0.0247		0.6458	0.6458		0.6035	0.6035	0.0000	2,368.0247	2,368.0247	0.6314		2,383.8095
Paving	7.2749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.5444**	**12.3077**	**15.5663**	**0.0247**		**0.6458**	**0.6458**		**0.6035**	**0.6035**	**0.0000**	**2,368.0247**	**2,368.0247**	**0.6314**		**2,383.8095**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1700e-003	0.0964	0.0313	3.8000e-004	0.0123	1.1100e-003	0.0134	3.5300e-003	1.0600e-003	4.5900e-003		40.0557	40.0557	2.0000e-004	6.1200e-003	41.8835
Worker	0.0467	0.0293	0.4586	1.1600e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		117.5464	117.5464	2.7700e-003	2.8400e-003	118.4607
Total	**0.0509**	**0.1258**	**0.4899**	**1.5400e-003**	**0.1400**	**1.7100e-003**	**0.1417**	**0.0374**	**1.6100e-003**	**0.0390**		**157.6021**	**157.6021**	**2.9700e-003**	**8.9600e-003**	**160.3443**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	50.4543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4124	3.5671	4.3200	7.1900e-003		0.1977	0.1977		0.1929	0.1929		684.1802	684.1802	0.0681		685.8831
Total	**50.8667**	**3.5671**	**4.3200**	**7.1900e-003**		**0.1977**	**0.1977**		**0.1929**	**0.1929**		**684.1802**	**684.1802**	**0.0681**		**685.8831**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0209	0.4822	0.1565	1.9000e-003	0.0613	5.5500e-003	0.0669	0.0177	5.3100e-003	0.0230		200.2785	200.2785	1.0200e-003	0.0306	209.4176
Worker	0.0467	0.0293	0.4586	1.1600e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		117.5464	117.5464	2.7700e-003	2.8400e-003	118.4607
Total	**0.0676**	**0.5115**	**0.6151**	**3.0600e-003**	**0.1891**	**6.1500e-003**	**0.1952**	**0.0515**	**5.8600e-003**	**0.0574**		**317.8249**	**317.8249**	**3.7900e-003**	**0.0334**	**327.8783**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	50.4543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4124	3.5671	4.3200	7.1900e-003		0.1977	0.1977		0.1929	0.1929	0.0000	684.1801	684.1801	0.0681		685.8831
Total	**50.8667**	**3.5671**	**4.3200**	**7.1900e-003**		**0.1977**	**0.1977**		**0.1929**	**0.1929**	**0.0000**	**684.1801**	**684.1801**	**0.0681**		**685.8831**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0209	0.4822	0.1565	1.9000e-003	0.0613	5.5500e-003	0.0669	0.0177	5.3100e-003	0.0230		200.2785	200.2785	1.0200e-003	0.0306	209.4176
Worker	0.0467	0.0293	0.4586	1.1600e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		117.5464	117.5464	2.7700e-003	2.8400e-003	118.4607
Total	**0.0676**	**0.5115**	**0.6151**	**3.0600e-003**	**0.1891**	**6.1500e-003**	**0.1952**	**0.0515**	**5.8600e-003**	**0.0574**		**317.8249**	**317.8249**	**3.7900e-003**	**0.0334**	**327.8783**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.499630	0.047553	0.173809	0.160741	0.040711	0.009075	0.015026	0.021805	0.000355	0.000000	0.025920	0.001425	0.003949

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1977	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8200e-003	1.8200e-003	0.0000		1.9400e-003
Unmitigated	0.1977	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8200e-003	1.8200e-003	0.0000		1.9400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0691					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1285					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-005	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8200e-003	1.8200e-003	0.0000		1.9400e-003
Total	**0.1977**	**1.0000e-005**	**8.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.8200e-003**	**1.8200e-003**	**0.0000**		**1.9400e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0691					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1285					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-005	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8200e-003	1.8200e-003	0.0000		1.9400e-003
Total	**0.1977**	**1.0000e-005**	**8.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.8200e-003**	**1.8200e-003**	**0.0000**		**1.9400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Platinum Trucking _ Construction

Sutter County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	8.33	Acre	8.33	362,854.80	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	61
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	2.68	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E GHG emission factor based on https://www.pgecorp.com/corp_responsibility/reports/2021/assets/PGE_CRSR_2021.pdf

Land Use -

Construction Phase - Construction schedule provided by client

Off-road Equipment - Equipment list provided by project engineer

Off-road Equipment - No bldg construction

Off-road Equipment - Equipment list provided by engineer

Off-road Equipment - Equipment list provided by project engineer

Off-road Equipment - Equipment list provided by project engineer

Off-road Equipment - Equipment list provided by project engineer

Trips and VMT - No bldg cons; worker trips provided by client; vendor trips for water truck, equipment mob and demob

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

Demolition -

Grading -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	3.00
tblConstructionPhase	NumDays	10.00	4.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialImported	0.00	2,930.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	8.00	1.00

tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripLength	6.60	0.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	59.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	152.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00
tblTripsAndVMT	WorkerTripNumber	30.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	50.9303	25.1661	16.9354	0.0572	2.4054	0.8529	3.2583	0.3901	0.7955	1.1857	0.0000	5,737.5448	5,737.5448	0.9242	0.3813	5,874.2721
Maximum	**50.9303**	**25.1661**	**16.9354**	**0.0572**	**2.4054**	**0.8529**	**3.2583**	**0.3901**	**0.7955**	**1.1857**	**0.0000**	**5,737.5448**	**5,737.5448**	**0.9242**	**0.3813**	**5,874.2721**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	50.9303	25.1661	16.9354	0.0572	1.5123	0.8529	2.3651	0.2929	0.7955	1.0884	0.0000	5,737.5448	5,737.5448	0.9242	0.3813	5,874.2721
Maximum	**50.9303**	**25.1661**	**16.9354**	**0.0572**	**1.5123**	**0.8529**	**2.3651**	**0.2929**	**0.7955**	**1.0884**	**0.0000**	**5,737.5448**	**5,737.5448**	**0.9242**	**0.3813**	**5,874.2721**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**37.13**	**0.00**	**27.41**	**24.92**	**0.00**	**8.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1977	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8200e-003	1.8200e-003	0.0000		1.9400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1977**	**1.0000e-005**	**8.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.8200e-003**	**1.8200e-003**	**0.0000**	**0.0000**	**1.9400e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1977	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8200e-003	1.8200e-003	0.0000		1.9400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1977**	**1.0000e-005**	**8.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.8200e-003**	**1.8200e-003**	**0.0000**	**0.0000**	**1.9400e-003**

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/15/2022	6	13	
2	Site Preparation	Site Preparation	6/16/2022	6/20/2022	6	4	
3	Grading	Grading	6/21/2022	7/1/2022	6	10	
4	Building Construction	Building Construction	7/1/2022	6/30/2022	6	0	
5	Paving	Paving	7/5/2022	7/7/2022	6	3	
6	Architectural Coating	Architectural Coating	7/11/2022	7/15/2022	6	5	

Acres of Grading (Site Preparation Phase): 4

Acres of Grading (Grading Phase): 15

Acres of Paving: 8.33

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 21,771 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.00	81	0.73
Demolition	Generator Sets	1	6.00	84	0.74
Demolition	Scrapers	1	8.00	367	0.48
Demolition	Sweepers/Scrubbers	1	4.00	64	0.46
Site Preparation	Generator Sets	1	6.00	84	0.74

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

Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Sweepers/Scrubbers	1	4.00	64	0.46
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Grading	Excavators	1	6.00	158	0.38
Grading	Generator Sets	1	6.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Grading	Scrapers	1	8.00	367	0.48
Grading	Sweepers/Scrubbers	1	4.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Cranes	0	0.00	231	0.29
Building Construction	Forklifts	0	0.00	89	0.20
Building Construction	Generator Sets	0	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Welders	0	0.00	46	0.45
Paving	Cement and Mortar Mixers	1	4.00	9	0.56
Paving	Generator Sets	1	6.00	84	0.74
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Sweepers/Scrubbers	1	4.00	64	0.46
Architectural Coating	Air Compressors	1	2.00	78	0.48
Architectural Coating	Generator Sets	1	6.00	84	0.74
Architectural Coating	Sweepers/Scrubbers	1	4.00	64	0.46

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	5.00	20.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

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

Site Preparation	4	10.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	10.00	2.00	366.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	10.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	3	10.00	10.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.0516	0.0000	0.0516			0.0000			0.0000
Off-Road	1.2081	12.3913	10.5493	0.0222		0.5383	0.5383		0.5056	0.5056		2,134.741 1	2,134.741 1	0.5416		2,148.280 5
Total	**1.2081**	**12.3913**	**10.5493**	**0.0222**	**0.3407**	**0.5383**	**0.8791**	**0.0516**	**0.5056**	**0.5572**		**2,134.741 1**	**2,134.741 1**	**0.5416**		**2,148.280 5**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.5300e-003	0.2336	0.0485	9.4000e-004	0.0270	2.3100e-003	0.0293	7.4000e-003	2.2100e-003	9.6000e-003		99.4485	99.4485	2.6000e-004	0.0156	104.1131
Vendor	0.0101	0.2607	0.0813	9.5000e-004	0.0307	2.7800e-003	0.0334	8.8300e-003	2.6600e-003	0.0115		100.2761	100.2761	4.9000e-004	0.0153	104.8553
Worker	0.0435	0.0363	0.3769	1.0300e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		103.9878	103.9878	2.9800e-003	3.2700e-003	105.0377
Total	**0.0591**	**0.5305**	**0.5066**	**2.9200e-003**	**0.1854**	**5.6900e-003**	**0.1910**	**0.0501**	**5.4200e-003**	**0.0555**		**303.7124**	**303.7124**	**3.7300e-003**	**0.0342**	**314.0061**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1533	0.0000	0.1533	0.0232	0.0000	0.0232			0.0000			0.0000
Off-Road	1.2081	12.3913	10.5493	0.0222		0.5383	0.5383		0.5056	0.5056	0.0000	2,134.7411	2,134.7411	0.5416		2,148.2805
Total	**1.2081**	**12.3913**	**10.5493**	**0.0222**	**0.1533**	**0.5383**	**0.6917**	**0.0232**	**0.5056**	**0.5288**	**0.0000**	**2,134.7411**	**2,134.7411**	**0.5416**		**2,148.2805**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.5300e-003	0.2336	0.0485	9.4000e-004	0.0270	2.3100e-003	0.0293	7.4000e-003	2.2100e-003	9.6000e-003		99.4485	99.4485	2.6000e-004	0.0156	104.1131
Vendor	0.0101	0.2607	0.0813	9.5000e-004	0.0307	2.7800e-003	0.0334	8.8300e-003	2.6600e-003	0.0115		100.2761	100.2761	4.9000e-004	0.0153	104.8553
Worker	0.0435	0.0363	0.3769	1.0300e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		103.9878	103.9878	2.9800e-003	3.2700e-003	105.0377
Total	**0.0591**	**0.5305**	**0.5066**	**2.9200e-003**	**0.1854**	**5.6900e-003**	**0.1910**	**0.0501**	**5.4200e-003**	**0.0555**		**303.7124**	**303.7124**	**3.7300e-003**	**0.0342**	**314.0061**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0605	0.0000	1.0605	0.1145	0.0000	0.1145			0.0000			0.0000
Off-Road	1.2458	12.8789	11.2102	0.0229		0.5646	0.5646		0.5283	0.5283		2,211.2775	2,211.2775	0.5863		2,225.9337
Total	**1.2458**	**12.8789**	**11.2102**	**0.0229**	**1.0605**	**0.5646**	**1.6251**	**0.1145**	**0.5283**	**0.6428**		**2,211.2775**	**2,211.2775**	**0.5863**		**2,225.9337**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0300e-003	0.1043	0.0325	3.8000e-004	0.0123	1.1100e-003	0.0134	3.5300e-003	1.0600e-003	4.6000e-003		40.1104	40.1104	2.0000e-004	6.1300e-003	41.9421
Worker	0.0435	0.0363	0.3769	1.0300e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		103.9878	103.9878	2.9800e-003	3.2700e-003	105.0377
Total	**0.0476**	**0.1406**	**0.4094**	**1.4100e-003**	**0.1400**	**1.7100e-003**	**0.1417**	**0.0374**	**1.6100e-003**	**0.0390**		**144.0983**	**144.0983**	**3.1800e-003**	**9.4000e-003**	**146.9798**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4772	0.0000	0.4772	0.0515	0.0000	0.0515			0.0000			0.0000
Off-Road	1.2458	12.8789	11.2102	0.0229		0.5646	0.5646		0.5283	0.5283	0.0000	2,211.2775	2,211.2775	0.5863		2,225.9337
Total	**1.2458**	**12.8789**	**11.2102**	**0.0229**	**0.4772**	**0.5646**	**1.0418**	**0.0515**	**0.5283**	**0.5798**	**0.0000**	**2,211.2775**	**2,211.2775**	**0.5863**		**2,225.9337**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0300e-003	0.1043	0.0325	3.8000e-004	0.0123	1.1100e-003	0.0134	3.5300e-003	1.0600e-003	4.6000e-003		40.1104	40.1104	2.0000e-004	6.1300e-003	41.9421
Worker	0.0435	0.0363	0.3769	1.0300e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		103.9878	103.9878	2.9800e-003	3.2700e-003	105.0377
Total	**0.0476**	**0.1406**	**0.4094**	**1.4100e-003**	**0.1400**	**1.7100e-003**	**0.1417**	**0.0374**	**1.6100e-003**	**0.0390**		**144.0983**	**144.0983**	**3.1800e-003**	**9.4000e-003**	**146.9798**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6239	0.0000	1.6239	0.1768	0.0000	0.1768			0.0000			0.0000
Off-Road	1.8126	19.4693	15.3733	0.0334		0.7963	0.7963		0.7414	0.7414		3,227.5679	3,227.5679	0.9149		3,250.4413
Total	**1.8126**	**19.4693**	**15.3733**	**0.0334**	**1.6239**	**0.7963**	**2.4201**	**0.1768**	**0.7414**	**0.9182**		**3,227.5679**	**3,227.5679**	**0.9149**		**3,250.4413**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1315	5.5563	1.1527	0.0224	0.6415	0.0549	0.6964	0.1760	0.0525	0.2285		2,365.878 6	2,365.878 6	6.1200e-003	0.3719	2,476.851 0
Vendor	4.0300e-003	0.1043	0.0325	3.8000e-004	0.0123	1.1100e-003	0.0134	3.5300e-003	1.0600e-003	4.6000e-003		40.1104	40.1104	2.0000e-004	6.1300e-003	41.9421
Worker	0.0435	0.0363	0.3769	1.0300e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		103.9878	103.9878	2.9800e-003	3.2700e-003	105.0377
Total	**0.1790**	**5.6968**	**1.5621**	**0.0238**	**0.7815**	**0.0566**	**0.8381**	**0.2134**	**0.0541**	**0.2675**		**2,509.976 9**	**2,509.976 9**	**9.3000e-003**	**0.3813**	**2,623.830 8**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7308	0.0000	0.7308	0.0796	0.0000	0.0796			0.0000			0.0000
Off-Road	1.8126	19.4693	15.3733	0.0334		0.7963	0.7963		0.7414	0.7414	0.0000	3,227.567 9	3,227.567 9	0.9149		3,250.441 3
Total	**1.8126**	**19.4693**	**15.3733**	**0.0334**	**0.7308**	**0.7963**	**1.5270**	**0.0796**	**0.7414**	**0.8209**	**0.0000**	**3,227.567 9**	**3,227.567 9**	**0.9149**		**3,250.441 3**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1315	5.5563	1.1527	0.0224	0.6415	0.0549	0.6964	0.1760	0.0525	0.2285		2,365.878 6	2,365.878 6	6.1200e-003	0.3719	2,476.851 0
Vendor	4.0300e-003	0.1043	0.0325	3.8000e-004	0.0123	1.1100e-003	0.0134	3.5300e-003	1.0600e-003	4.6000e-003		40.1104	40.1104	2.0000e-004	6.1300e-003	41.9421
Worker	0.0435	0.0363	0.3769	1.0300e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		103.9878	103.9878	2.9800e-003	3.2700e-003	105.0377
Total	**0.1790**	**5.6968**	**1.5621**	**0.0238**	**0.7815**	**0.0566**	**0.8381**	**0.2134**	**0.0541**	**0.2675**		**2,509.976 9**	**2,509.976 9**	**9.3000e-003**	**0.3813**	**2,623.830 8**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2695	12.3077	15.5663	0.0247		0.6458	0.6458		0.6035	0.6035		2,368.0247	2,368.0247	0.6314		2,383.8095
Paving	7.2749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.5444**	**12.3077**	**15.5663**	**0.0247**		**0.6458**	**0.6458**		**0.6035**	**0.6035**		**2,368.0247**	**2,368.0247**	**0.6314**		**2,383.8095**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0300e-003	0.1043	0.0325	3.8000e-004	0.0123	1.1100e-003	0.0134	3.5300e-003	1.0600e-003	4.6000e-003		40.1104	40.1104	2.0000e-004	6.1300e-003	41.9421
Worker	0.0435	0.0363	0.3769	1.0300e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		103.9878	103.9878	2.9800e-003	3.2700e-003	105.0377
Total	**0.0476**	**0.1406**	**0.4094**	**1.4100e-003**	**0.1400**	**1.7100e-003**	**0.1417**	**0.0374**	**1.6100e-003**	**0.0390**		**144.0983**	**144.0983**	**3.1800e-003**	**9.4000e-003**	**146.9798**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2695	12.3077	15.5663	0.0247		0.6458	0.6458		0.6035	0.6035	0.0000	2,368.0247	2,368.0247	0.6314		2,383.8095
Paving	7.2749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.5444**	**12.3077**	**15.5663**	**0.0247**		**0.6458**	**0.6458**		**0.6035**	**0.6035**	**0.0000**	**2,368.0247**	**2,368.0247**	**0.6314**		**2,383.8095**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0300e-003	0.1043	0.0325	3.8000e-004	0.0123	1.1100e-003	0.0134	3.5300e-003	1.0600e-003	4.6000e-003		40.1104	40.1104	2.0000e-004	6.1300e-003	41.9421
Worker	0.0435	0.0363	0.3769	1.0300e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		103.9878	103.9878	2.9800e-003	3.2700e-003	105.0377
Total	**0.0476**	**0.1406**	**0.4094**	**1.4100e-003**	**0.1400**	**1.7100e-003**	**0.1417**	**0.0374**	**1.6100e-003**	**0.0390**		**144.0983**	**144.0983**	**3.1800e-003**	**9.4000e-003**	**146.9798**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	50.4543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4124	3.5671	4.3200	7.1900e-003		0.1977	0.1977		0.1929	0.1929		684.1802	684.1802	0.0681		685.8831
Total	**50.8667**	**3.5671**	**4.3200**	**7.1900e-003**		**0.1977**	**0.1977**		**0.1929**	**0.1929**		**684.1802**	**684.1802**	**0.0681**		**685.8831**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0201	0.5214	0.1626	1.9000e-003	0.0613	5.5600e-003	0.0669	0.0177	5.3200e-003	0.0230		200.5522	200.5522	9.8000e-004	0.0307	209.7106
Worker	0.0435	0.0363	0.3769	1.0300e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		103.9878	103.9878	2.9800e-003	3.2700e-003	105.0377
Total	**0.0637**	**0.5577**	**0.5395**	**2.9300e-003**	**0.1891**	**6.1600e-003**	**0.1952**	**0.0515**	**5.8700e-003**	**0.0574**		**304.5400**	**304.5400**	**3.9600e-003**	**0.0339**	**314.7483**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	50.4543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4124	3.5671	4.3200	7.1900e-003		0.1977	0.1977		0.1929	0.1929	0.0000	684.1801	684.1801	0.0681		685.8831
Total	**50.8667**	**3.5671**	**4.3200**	**7.1900e-003**		**0.1977**	**0.1977**		**0.1929**	**0.1929**	**0.0000**	**684.1801**	**684.1801**	**0.0681**		**685.8831**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0201	0.5214	0.1626	1.9000e-003	0.0613	5.5600e-003	0.0669	0.0177	5.3200e-003	0.0230		200.5522	200.5522	9.8000e-004	0.0307	209.7106
Worker	0.0435	0.0363	0.3769	1.0300e-003	0.1277	6.0000e-004	0.1283	0.0339	5.5000e-004	0.0344		103.9878	103.9878	2.9800e-003	3.2700e-003	105.0377
Total	**0.0637**	**0.5577**	**0.5395**	**2.9300e-003**	**0.1891**	**6.1600e-003**	**0.1952**	**0.0515**	**5.8700e-003**	**0.0574**		**304.5400**	**304.5400**	**3.9600e-003**	**0.0339**	**314.7483**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.499630	0.047553	0.173809	0.160741	0.040711	0.009075	0.015026	0.021805	0.000355	0.000000	0.025920	0.001425	0.003949

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1977	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8200e-003	1.8200e-003	0.0000		1.9400e-003
Unmitigated	0.1977	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8200e-003	1.8200e-003	0.0000		1.9400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0691					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1285					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-005	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8200e-003	1.8200e-003	0.0000		1.9400e-003
Total	**0.1977**	**1.0000e-005**	**8.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.8200e-003**	**1.8200e-003**	**0.0000**		**1.9400e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0691					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1285					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-005	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8200e-003	1.8200e-003	0.0000		1.9400e-003
Total	**0.1977**	**1.0000e-005**	**8.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.8200e-003**	**1.8200e-003**	**0.0000**		**1.9400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Platinum Trucking - Operational
Sutter County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	16.00	1000sqft	0.37	16,000.00	0
Parking Lot	7.96	Acre	7.96	346,737.60	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	61
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	2.68	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E GHG emission factor based on https://www.pgecorp.com/corp_responsibility/reports/2021/assets/PGE_CRSR_2021.pdf

Land Use -

Construction Phase - Schedule provided by client

Grading -

Vehicle Trips - Vehicle emissions calculated off-model

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	NumDays	20.00	13.00

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

tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	3.00
tblConstructionPhase	NumDays	10.00	4.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.99	0.00
tblVehicleTrips	SU_TR	5.00	0.00
tblVehicleTrips	WD_TR	4.96	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.3530	0.3588	0.2877	5.5000e-004	0.0785	0.0171	0.0956	0.0383	0.0158	0.0541	0.0000	48.4219	48.4219	0.0137	8.0000e-005	48.7887
Maximum	**0.3530**	**0.3588**	**0.2877**	**5.5000e-004**	**0.0785**	**0.0171**	**0.0956**	**0.0383**	**0.0158**	**0.0541**	**0.0000**	**48.4219**	**48.4219**	**0.0137**	**8.0000e-005**	**48.7887**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.3530	0.3588	0.2877	5.5000e-004	0.0785	0.0171	0.0956	0.0383	0.0158	0.0541	0.0000	48.4218	48.4218	0.0137	8.0000e-005	48.7886
Maximum	**0.3530**	**0.3588**	**0.2877**	**5.5000e-004**	**0.0785**	**0.0171**	**0.0956**	**0.0383**	**0.0158**	**0.0541**	**0.0000**	**48.4218**	**48.4218**	**0.0137**	**8.0000e-005**	**48.7886**

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

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2022**	**8-31-2022**	0.6600	0.6600
		Highest	0.6600	0.6600

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1155	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Energy	1.7900e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.9891	17.9891	4.2200e-003	7.9000e-004	18.3312
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	4.0273	0.0000	4.0273	0.2380	0.0000	9.9776
Water						0.0000	0.0000		0.0000	0.0000	1.1738	0.0243	1.1982	0.1209	2.8800e-003	5.0790
Total	**0.1173**	**0.0162**	**0.0139**	**1.0000e-004**	**0.0000**	**1.2300e-003**	**1.2300e-003**	**0.0000**	**1.2300e-003**	**1.2300e-003**	**5.2012**	**18.0139**	**23.2150**	**0.3631**	**3.6700e-003**	**33.3882**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1155	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Energy	1.7900e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.9891	17.9891	4.2200e-003	7.9000e-004	18.3312
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	4.0273	0.0000	4.0273	0.2380	0.0000	9.9776
Water						0.0000	0.0000		0.0000	0.0000	1.1738	0.0243	1.1982	0.1209	2.8800e-003	5.0790
Total	**0.1173**	**0.0162**	**0.0139**	**1.0000e-004**	**0.0000**	**1.2300e-003**	**1.2300e-003**	**0.0000**	**1.2300e-003**	**1.2300e-003**	**5.2012**	**18.0139**	**23.2150**	**0.3631**	**3.6700e-003**	**33.3882**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/15/2022	6	13	
2	Site Preparation	Site Preparation	6/16/2022	6/20/2022	6	4	
3	Grading	Grading	6/21/2022	7/1/2022	6	10	

4	Paving	Paving	7/5/2022	7/7/2022	6	3	
5	Architectural Coating	Architectural Coating	7/11/2022	7/15/2022	6	5	
6	Building Construction	Building Construction	8/10/2022	8/9/2022	6	0	

Acres of Grading (Site Preparation Phase): 6

Acres of Grading (Grading Phase): 10

Acres of Paving: 7.96

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 24,000; Non-Residential Outdoor: 8,000; Striped Parking Area: 20,804 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37

Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	152.00	59.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0172	0.1672	0.1339	2.5000e-004		8.0800e-003	8.0800e-003		7.5100e-003	7.5100e-003	0.0000	22.0937	22.0937	6.2100e-003	0.0000	22.2488
Total	**0.0172**	**0.1672**	**0.1339**	**2.5000e-004**		**8.0800e-003**	**8.0800e-003**		**7.5100e-003**	**7.5100e-003**	**0.0000**	**22.0937**	**22.0937**	**6.2100e-003**	**0.0000**	**22.2488**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	3.1000e-004	3.7100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9465	0.9465	2.0000e-005	3.0000e-005	0.9551
Total	**4.0000e-004**	**3.1000e-004**	**3.7100e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9465**	**0.9465**	**2.0000e-005**	**3.0000e-005**	**0.9551**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0172	0.1672	0.1339	2.5000e-004		8.0800e-003	8.0800e-003		7.5100e-003	7.5100e-003	0.0000	22.0936	22.0936	6.2100e-003	0.0000	22.2488
Total	**0.0172**	**0.1672**	**0.1339**	**2.5000e-004**		**8.0800e-003**	**8.0800e-003**		**7.5100e-003**	**7.5100e-003**	**0.0000**	**22.0936**	**22.0936**	**6.2100e-003**	**0.0000**	**22.2488**

3.2 Demolition - 2022

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	3.1000e-004	3.7100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9465	0.9465	2.0000e-005	3.0000e-005	0.9551
Total	**4.0000e-004**	**3.1000e-004**	**3.7100e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9465**	**0.9465**	**2.0000e-005**	**3.0000e-005**	**0.9551**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.0393	0.0000	0.0393	0.0202	0.0000	0.0202	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3400e-003	0.0662	0.0394	8.0000e-005		3.2300e-003	3.2300e-003		2.9700e-003	2.9700e-003	0.0000	6.6879	6.6879	2.1600e-003	0.0000	6.7420
Total	**6.3400e-003**	**0.0662**	**0.0394**	**8.0000e-005**	**0.0393**	**3.2300e-003**	**0.0425**	**0.0202**	**2.9700e-003**	**0.0232**	**0.0000**	**6.6879**	**6.6879**	**2.1600e-003**	**0.0000**	**6.7420**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.2000e-004	1.3700e-003	0.0000	4.4000e-004	0.0000	4.5000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3495	0.3495	1.0000e-005	1.0000e-005	0.3526
Total	**1.5000e-004**	**1.2000e-004**	**1.3700e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.5000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3495**	**0.3495**	**1.0000e-005**	**1.0000e-005**	**0.3526**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0393	0.0000	0.0393	0.0202	0.0000	0.0202	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3400e-003	0.0662	0.0394	8.0000e-005		3.2300e-003	3.2300e-003		2.9700e-003	2.9700e-003	0.0000	6.6879	6.6879	2.1600e-003	0.0000	6.7419
Total	**6.3400e-003**	**0.0662**	**0.0394**	**8.0000e-005**	**0.0393**	**3.2300e-003**	**0.0425**	**0.0202**	**2.9700e-003**	**0.0232**	**0.0000**	**6.6879**	**6.6879**	**2.1600e-003**	**0.0000**	**6.7419**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.2000e-004	1.3700e-003	0.0000	4.4000e-004	0.0000	4.5000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3495	0.3495	1.0000e-005	1.0000e-005	0.3526
Total	**1.5000e-004**	**1.2000e-004**	**1.3700e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.5000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3495**	**0.3495**	**1.0000e-005**	**1.0000e-005**	**0.3526**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0354	0.0000	0.0354	0.0171	0.0000	0.0171	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7400e-003	0.1043	0.0764	1.5000e-004		4.7000e-003	4.7000e-003		4.3300e-003	4.3300e-003	0.0000	13.0274	13.0274	4.2100e-003	0.0000	13.1327
Total	**9.7400e-003**	**0.1043**	**0.0764**	**1.5000e-004**	**0.0354**	**4.7000e-003**	**0.0401**	**0.0171**	**4.3300e-003**	**0.0215**	**0.0000**	**13.0274**	**13.0274**	**4.2100e-003**	**0.0000**	**13.1327**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.8500e-003	1.0000e-005	9.2000e-004	0.0000	9.3000e-004	2.5000e-004	0.0000	2.5000e-004	0.0000	0.7281	0.7281	2.0000e-005	2.0000e-005	0.7347
Total	**3.1000e-004**	**2.4000e-004**	**2.8500e-003**	**1.0000e-005**	**9.2000e-004**	**0.0000**	**9.3000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**0.7281**	**0.7281**	**2.0000e-005**	**2.0000e-005**	**0.7347**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0354	0.0000	0.0354	0.0171	0.0000	0.0171	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7400e-003	0.1043	0.0764	1.5000e-004		4.7000e-003	4.7000e-003		4.3300e-003	4.3300e-003	0.0000	13.0274	13.0274	4.2100e-003	0.0000	13.1327
Total	**9.7400e-003**	**0.1043**	**0.0764**	**1.5000e-004**	**0.0354**	**4.7000e-003**	**0.0401**	**0.0171**	**4.3300e-003**	**0.0215**	**0.0000**	**13.0274**	**13.0274**	**4.2100e-003**	**0.0000**	**13.1327**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.8500e-003	1.0000e-005	9.2000e-004	0.0000	9.3000e-004	2.5000e-004	0.0000	2.5000e-004	0.0000	0.7281	0.7281	2.0000e-005	2.0000e-005	0.7347
Total	**3.1000e-004**	**2.4000e-004**	**2.8500e-003**	**1.0000e-005**	**9.2000e-004**	**0.0000**	**9.3000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**0.7281**	**0.7281**	**2.0000e-005**	**2.0000e-005**	**0.7347**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6500e-003	0.0167	0.0219	3.0000e-005		8.5000e-004	8.5000e-004		7.8000e-004	7.8000e-004	0.0000	3.0041	3.0041	9.7000e-004	0.0000	3.0284
Paving	0.0104					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0121**	**0.0167**	**0.0219**	**3.0000e-005**		**8.5000e-004**	**8.5000e-004**		**7.8000e-004**	**7.8000e-004**	**0.0000**	**3.0041**	**3.0041**	**9.7000e-004**	**0.0000**	**3.0284**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	8.6000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2184	0.2184	1.0000e-005	1.0000e-005	0.2204
Total	**9.0000e-005**	**7.0000e-005**	**8.6000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2184**	**0.2184**	**1.0000e-005**	**1.0000e-005**	**0.2204**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6500e-003	0.0167	0.0219	3.0000e-005		8.5000e-004	8.5000e-004		7.8000e-004	7.8000e-004	0.0000	3.0041	3.0041	9.7000e-004	0.0000	3.0284
Paving	0.0104					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0121**	**0.0167**	**0.0219**	**3.0000e-005**		**8.5000e-004**	**8.5000e-004**		**7.8000e-004**	**7.8000e-004**	**0.0000**	**3.0041**	**3.0041**	**9.7000e-004**	**0.0000**	**3.0284**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	8.6000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2184	0.2184	1.0000e-005	1.0000e-005	0.2204
Total	**9.0000e-005**	**7.0000e-005**	**8.6000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2184**	**0.2184**	**1.0000e-005**	**1.0000e-005**	**0.2204**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3059					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	3.5200e-003	4.5300e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.3064**	**3.5200e-003**	**4.5300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.8500e-003	1.0000e-005	9.2000e-004	0.0000	9.3000e-004	2.5000e-004	0.0000	2.5000e-004	0.0000	0.7281	0.7281	2.0000e-005	2.0000e-005	0.7347
Total	**3.1000e-004**	**2.4000e-004**	**2.8500e-003**	**1.0000e-005**	**9.2000e-004**	**0.0000**	**9.3000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**0.7281**	**0.7281**	**2.0000e-005**	**2.0000e-005**	**0.7347**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3059					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	3.5200e-003	4.5300e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.3064**	**3.5200e-003**	**4.5300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.8500e-003	1.0000e-005	9.2000e-004	0.0000	9.3000e-004	2.5000e-004	0.0000	2.5000e-004	0.0000	0.7281	0.7281	2.0000e-005	2.0000e-005	0.7347
Total	**3.1000e-004**	**2.4000e-004**	**2.8500e-003**	**1.0000e-005**	**9.2000e-004**	**0.0000**	**9.3000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**0.7281**	**0.7281**	**2.0000e-005**	**2.0000e-005**	**0.7347**

3.7 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.499630	0.047553	0.173809	0.160741	0.040711	0.009075	0.015026	0.021805	0.000355	0.000000	0.025920	0.001425	0.003949
Parking Lot	0.499630	0.047553	0.173809	0.160741	0.040711	0.009075	0.015026	0.021805	0.000355	0.000000	0.025920	0.001425	0.003949

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.3150	0.3150	3.8800e-003	4.7000e-004	0.5521
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.3150	0.3150	3.8800e-003	4.7000e-004	0.5521
NaturalGas Mitigated	1.7900e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6741	17.6741	3.4000e-004	3.2000e-004	17.7791
NaturalGas Unmitigated	1.7900e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6741	17.6741	3.4000e-004	3.2000e-004	17.7791

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	331200	1.7900e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6741	17.6741	3.4000e-004	3.2000e-004	17.7791
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.7900e-003**	**0.0162**	**0.0136**	**1.0000e-004**		**1.2300e-003**	**1.2300e-003**		**1.2300e-003**	**1.2300e-003**	**0.0000**	**17.6741**	**17.6741**	**3.4000e-004**	**3.2000e-004**	**17.7791**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	331200	1.7900e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6741	17.6741	3.4000e-004	3.2000e-004	17.7791
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.7900e-003**	**0.0162**	**0.0136**	**1.0000e-004**		**1.2300e-003**	**1.2300e-003**		**1.2300e-003**	**1.2300e-003**	**0.0000**	**17.6741**	**17.6741**	**3.4000e-004**	**3.2000e-004**	**17.7791**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	137760	0.1675	2.0600e-003	2.5000e-004	0.2935
Parking Lot	121358	0.1475	1.8200e-003	2.2000e-004	0.2586
Total		**0.3150**	**3.8800e-003**	**4.7000e-004**	**0.5521**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	137760	0.1675	2.0600e-003	2.5000e-004	0.2935
Parking Lot	121358	0.1475	1.8200e-003	2.2000e-004	0.2586
Total		**0.3150**	**3.8800e-003**	**4.7000e-004**	**0.5521**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1155	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Unmitigated	0.1155	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0306					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0849					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Total	**0.1155**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.0000**	**4.6000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0306					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0849					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Total	**0.1155**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.0000**	**4.6000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.1982	0.1209	2.8800e-003	5.0790
Unmitigated	1.1982	0.1209	2.8800e-003	5.0790

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	3.7 / 0	1.1982	0.1209	2.8800e-003	5.0790
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.1982**	**0.1209**	**2.8800e-003**	**5.0790**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	3.7 / 0	1.1982	0.1209	2.8800e-003	5.0790
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.1982**	**0.1209**	**2.8800e-003**	**5.0790**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.0273	0.2380	0.0000	9.9776
Unmitigated	4.0273	0.2380	0.0000	9.9776

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	19.84	4.0273	0.2380	0.0000	9.9776
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**4.0273**	**0.2380**	**0.0000**	**9.9776**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	19.84	4.0273	0.2380	0.0000	9.9776
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**4.0273**	**0.2380**	**0.0000**	**9.9776**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX C

CULTURAL RESOURCE TECHNICAL MEMORANDUM

P.O. Box 367
Elmira, CA 95625

707-718-1416 ▴ Fax 707-451-4775
www.solanoarchaeology.com

CULTURAL RESOURCES TECHNICAL MEMORANDUM

Date: January 3, 2023
To: BaseCamp Environmental, Inc.
From: Solano Archaeological Services, LLC

Subject: Cultural Resources Investigation – 7235 Pacific Avenue Project, Community of Pleasant Grove, Sutter County, California

INTRODUCTION

This technical memorandum summarizes the background research, Native American community outreach, archaeological survey, and study findings for the proposed 7235 Pacific Avenue (Ave.) Project (the Project) located in the community of Pleasant Grove, in Sutter County, California. The Project is subject to California Environmental Quality Act (CEQA) requirements, and Solano Archaeological Services, LLC (SAS) has prepared this report to support compliance with the cultural resources provisions of CEQA.

PROJECT LOCATION

The project area consists of a 9.9-acre (ac.) parcel (Assessor's Parcel Number 35-220-017) located at 7235 Pacific Ave. in Pleasant Grove, east of State Route 99/70, and just south of Sankey Road. (Attachment A, Figure 1). The project area is depicted on the *Verona, California* U.S. Geological Survey (USGS) topographic 7.5 minute quadrangle in projected Township 11 North, Range 4 East, Section 28 (Attachment A, Figures 2, 3).

PROJECT DESCRIPTION

The Project, as proposed by Platinum Express, Inc., would make improvements to an existing agricultural truck terminal storage transfer station at 7235 Pacific Ave. for use as a larger general truck yard. The storage yard would connect to Pacific Ave. in two locations for the trucks to turn in. Two existing shops would continue to be used for truck repair and maintenance (e.g., oil changes, engine repairs, and tire installations). Proposed drainage for the new parking area will be connected to an existing drainage ditch that runs parallel to the north and west property lines. An existing diesel tank and gasoline tanks have been removed from the site. The proposed run of the driveway from the new parking lot is approximately 65 feet so that the trucks will be completely off Pacific Ave. when they enter.

REGULATORY SETTING

CEQA requires that public agencies having authority to finance or approve public or private projects assess the effects of those projects on cultural resources. Cultural resources include buildings, sites, structures, objects, or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance. CEQA states that if a proposed project would result in an effect that may cause a substantial adverse change in the significance of a significant cultural resource (termed a "historical resource”), alternative plans or mitigation measures must be considered. Because only significant cultural resources need to be addressed, the significance of cultural resources must be determined before mitigation measures are developed.

CEQA §5024.1 (Public Resources Code [PRC] §5024.1) and §15064.5 of the State CEQA Guidelines (14 California Code of Regulations [CCR] §15064.5) define a *historical resource* as “a resource listed or eligible for listing on the California Register of Historical Resources.” A historical resource may be eligible for inclusion in the California Register of Historical Resources if it:

1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage
2) Is associated with the lives of persons important to our past
3) Embodies the distinctive characteristics of a type, period, region, or method of construction represents the work of an important creative individual; or possesses high artistic values; or
4) Has yielded, or may be likely to yield, information important to prehistory or history

In addition, CEQA also distinguishes between two classes of archaeological resources: archaeological sites that meet the definition of a historical resource, and “unique archaeological resources.” An archaeological resource is considered unique if it:

- Is associated with an event or person of recognized significance in California or American history or of recognized scientific importance in prehistory
- Can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions
- Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind
- Is at least 100 years old and possesses substantial stratigraphic integrity; or
- Involves important research questions that historical research has shown can be answered only with archaeological methods (Public Resources Code §21083.2)

According to the CEQA Guidelines, a project with an effect that may cause a substantial adverse change in the significance of a historical resource, or a unique archaeological resource is a project that may have a significant effect on the environment (14 CCR §15064.5[b]). CEQA further states that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.

Natural and Cultural Setting

The project area is situated within the climatic band classified as the Lower Sonoran Zone (Storer and Usinger 1970). This zone is characterized as Mediterranean, with cool, wet winters and hot, dry summers. Locally, this consists of approximately 17 inches of annual rainfall, high summer temperatures, and low humidity. The dominant vegetative communities in this area are prairie grasslands and tule marshes, with some areas of riparian woodland (Kuchler 1977). These differing vegetative zones provided prehistoric populations with a diverse range of natural resources that were regularly exploited.

Faunal species that frequented the prehistoric prairie grasslands and tule marshes once common to the region included mule deer, tule elk, pronghorn antelope, weasel, river otter, raccoon, and beaver. Migratory waterfowl such as Canada geese and swans passed through during the winter, joining great blue and black-crowned herons, ibis, cranes, cormorants, and bald eagles. Badgers, coyotes, skunks, jackrabbits, and cottontail rabbits inhabited higher ground. Within the waterways, Chinook salmon, steelhead trout, Pacific lamprey, and white sturgeon seasonally joined resident freshwater fish species indigenous to the area such as, Sacramento perch, Sacramento sucker, and other *Cyprinids*. Predators such as mountain lions, grizzly bears, wolves, kit fox, and bobcats also roamed the area (Moratto 1984).

Prehistoric Setting

Attempts to classify the prehistory of California date to at least the early decades of the 20th century, but it was the later work of Beardsley (1948, 1954) that formed the basis for cultural sequences used today. Based on documenting artifact similarities among sites in the San Francisco Bay region and the Sacramento-San Joaquin Delta, Beardsley formatted his findings into a cultural model known as the Central California Taxonomic System (CCTS). This system proposed a linear, uniform sequence of cultural succession in central California, and defined Early, Middle, and Late horizons for cultural change. Archaeological researchers subsequently refined and redefined aspects of the CCTS. For example, Fredrickson (1973, 1974, and 1994) reviewed general economic, technological, and mortuary traits between archaeological assemblages across the region. He separated cultural, temporal, and spatial units from each other and assigned them to six chronological periods: Paleo-Indian (12,000-8,000 B.P.); Lower, Middle, and Upper Archaic (8,000 B.P. to 1,500 B.P.) and Upper, and Lower Emergent (1,500 B.P. to 200 B.P.).

Fredrickson's (1974) Paleo-Archaic-Emergent cultural sequence was recalibrated by Rosenthal et al. (2007) who defined three broad periods: The Paleoindian (13,550–10,550 B.P.); the three-staged Archaic, consisting of the Lower Archaic 10,550–7,550 B.P.), Middle Archaic (7,550–2,550 B.P.), and Upper Archaic (2,550 cal. B.P.–2,100 B.P.); and the Emergent (2,100 B.P–contact). These three divisions correspond to climate changes and the overall sequence is now commonly used to interpret central California prehistory.

Paleo-Indian Period

This period began when the first people began to enter what is now known as the California culture area. It was commonly believed these first people subsisted on big game and minimally processed foods, (i.e., hunters and gatherers), and did not engage in long-range trade patterns. However, recent research indicates these people may have been more sedentary, relied on some processed foods, and were engaged in trade over fairly long distances (Rosenthal et al. 2007). Populations likely consisted of small groups traveling frequently to exploit plant and animal species seasonally available across wide landscapes.

Archaic Period

This period was characterized by an increase in plant exploitation, more elaborate burial accoutrements, and increased trade network complexity. The three divisions that correspond to prehistoric climate change are characterized by the following traits (Rosenthal et al. 2007):

- Lower Archaic Period—Cycles of widespread floodplain and alluvial fan deposition have been documented during this period. Artifact assemblages from this time include flaked stone crescents, early wide-stemmed points, and marine shell beads. Obsidian from eastern Nevada and the north coast ranges has been found on sites dating to this period which indicates trade was occurring in multiple directions. A variety of plant and animal species were utilized, including acorns, wild cucumber, and manzanita berries.
- Middle Archaic Period—Rosenthal et al. (2007) identified two distinct settlement/subsistence patterns during this period which was significantly drier than the Lower Archaic: the foothill tradition, and the valley tradition. Functional artifact assemblages consisting primarily of locally sourced flaked stone and groundstone cobbles characterize the foothills tradition, with very few trade goods. Specialized tools, trade goods, and faunal refuse that suggests year-round occupation are evident on sites of the valley tradition. Distinct artifacts attributed to this tradition include one of the oldest dated shell bead assemblages in central California (4,160 B.P.) and a particular type of pestle used with a wooden mortar (Meyer and Rosenthal 1997).

- Upper Archaic Period—This period saw an abrupt change to wetter and cooler environmental climate conditions. Much greater cultural diversity can be seen in archaeological assemblages from this period. More specialized artifacts, such as bone tools, ceremonial blades, polished and groundstone plummets, saucer and saddle *Olivella* shell beads, *Haliotis* shell ornaments, and a variety of groundstone implements are characteristic of this period.

Emergent Period

This period saw the introduction of the bow and arrow, the emergence of social stratification linked to wealth, an expansion of trade networks, and the apparent use of clam shell beads as a form of currency (Moratto 1984). The Augustine pattern (the distinct cultural pattern of the Emergent Period) is characterized by the appearance of small projectile points (largely obsidian), rimmed display mortars, flanged steatite pipes, flanged pestles and chevron-decorated bird-bone tubes. Large mammals and small seeded resources appear to have made up a larger part of the diet during this period (Fredrickson 1968; Meyer and Rosenthal 1997; Rosenthal et al. 2007).

Ethnographic Context

The project area is situated within the area traditionally occupied and used by the Nisenan, or Southern Maidu Native American group. The language of the Nisenan, which includes several dialects, is classified within the Maiduan family of the Penutian linguistic stock (Kroeber 1925; Shipley 1978). The western boundary of Nisenan territory was the western bank of the Sacramento River. The eastern boundary was "the line in the Sierra Nevada mountains where the snow lay on the ground all winter" (Littlejohn 1928:13). Nisenan settlement locations depended primarily on elevation, exposure, and proximity to water such as the Sacramento River, and other resources.

Permanent villages were usually located on low rises along major watercourses. Wilson and Towne (1978) indicate that village size ranged from three houses to up to 40 or 50. During expeditions in 1833, Work (Maloney 1944) indicated that these villages along the Sacramento River were composed of up to 200 individuals. Houses were domed structures covered with earth and tule or grass and measured 10–15 feet in diameter. Brush shelters were used in the summer and at temporary camps during food-gathering rounds. Larger villages often had semi-subterranean dance houses that were covered in earth and tule or brush and had a central smoke hole at the top and an east-facing entrance. Another common village structure was a granary, which was used for storing acorns (Wilson and Towne 1978). Numerous ethnographic period Nisenan village sites have been documented in the region surrounding the project area but the closest was *Leuchi*, situated about 3.5 miles (mi.) due east, adjacent to the east bank of the Sacramento River (Wilson and Towne 1978).

John Work's California Expedition passed through this area in 1833 and his record from August of 1833, provides insight into the depopulation of the Sacramento Valley villages caused by disease, which afflicted the natives throughout the whole interior valley:

> …*The villages which were so populous and swarming with inhabitants when we passed that way in Jary* (January) *or Febry* (February) *last seem now almost deserted & have a desolate appearance. The few wretched Indians who remain seem wretched they are lying apparently scarcely able to move, It is not starvation as they have considerable quantities of their winter stock of acorns still remaining. We are unable to learn the malady or its cause. I have given the people orders to avoid approaching the villages lest it be infectious* (Maloney 1944:132).

The Nisenan occupied permanent settlements from which specific task groups set out to harvest the seasonal bounty of flora and fauna that the rich valley environment provided. The Valley Nisenan economy involved riparian resources, in contrast to that of the Hill Nisenan, whose resource base consisted primarily of acorn and game procurement. The only domestic plant was native tobacco (*Nicotiana sp.*), but many wild species were closely husbanded. The acorn crop from the blue oak

(*Quercus douglasii*) and black oak (*Q. kelloggii*) was so carefully managed that its management served as the equivalent of agriculture. Acorns could be stored in anticipation of winter shortfalls in resource abundance. Elk, antelope, deer, rabbit, and salmon were the chief sources of animal protein in the aboriginal diet, but many insect and other animal species were taken when available.

Events such as the yellow fever epidemics of the 1833–1834 alluded to in the expedition of Work, mentioned above, and the Gold Rush of the late 1840s and early 1850s virtually decimated the Nisenan population and heavily marginalized the people. Today, the Nisenan are reinvesting in their Native culture and traditions and once again constitute a thriving community within the broader present-day political and economic landscape.

Historic Period Setting

Beginning in the late 1700s the Spanish made forays into the Central Valley south of Sacramento, but it was not until 1808 that formal exploration took place when Captain Gabriel Moraga travelled through the Sacramento area. Another expedition led by Father Narciso Duŕan, accompanied by Spanish explorer, Luis Arguello, sailed up the Sacramento River to a point near the confluence with the Feather River, and on a second voyage Arguello named the Feather River and may have traveled as far north as Tehama County (Hoover et al. 1990:495, 538). In 1827 the trapper Jedediah Smith traveled along the Sacramento River and into the San Joaquin Valley, and John Work traveled south from Oregon in 1832 to San Francisco and returned north in 1833.

John Sutter received a land grant from the Mexican government in 1839 which extend north from the confluence of the American and Sacramento Rivers into Sutter County, and started the first permanent Euro-American settlement of any size in the region. Sutter's New Helvetia settlement was established shortly after the grant was awarded and cattle grazing, and agriculture quickly became the economic foundation of the region. Sutter also built an adobe house at the Hock Farm on the west side of the Feather River south of Yuba City in 1841, and appears to have been the first Euro-American structure erected in the county. He grazed approximately 5,000 head of cattle and 1,200 horses on the plains between the plains of the Sacramento and Feather Rivers. By the 1850s three towns, Yuba City, Vernon, and Nicolaus were established in the area and the largest of the three, Yuba City, became the county seat for a period of time (Thompson and West 1879:28).

Because of seasonal inundation, little settlement occurred in the American Basin in Sutter and North Sacramento counties, with seasonal agriculture and cattle grazing being the primary industries in the region during the historic period. Regional livestock ranching originated on the New Helvetia rancho in the early 1840s. The Gold Rush precipitated growth in agriculture and ranching, as ranchers and farmers realized handsome returns from supplying food and other goods to miners. Frequent floods, however, plagued the residents of the area and posed a significant threat to the viability of agricultural interests and further settlement pending efforts to control seasonal inundation.

Initial efforts at flood control were generally uncoordinated and consisted of small levees and drains constructed by individual landowners. These features proved insufficient to protect cultivated land, and much of the area surrounding the project area flooded regularly (Dames & Moore 1994). In 1861, the state legislature created the State Board of Swampland Commissioners to affect reclamation of swamp and overflow lands. The Board established 32 districts that attempted to enclose large areas with natural levees. Lack of cooperation among the landowners in the districts led to chronic financial crises. When the state legislature terminated the State Board of Swampland Commissioners in 1866, responsibility for swamp and overflow land fell to the individual counties. Many counties offered incentives to landowners for reclaiming agriculturally unproductive land. If a landowner could certify that he had spent at least two dollars per acre in reclamation, the county would refund the purchase price of the property to the owner. Speculators took advantage of this program and a period of opportunistic and often-irrational levee building followed (McGowan 1961; Thompson 1958).

In the early part of the 20th century, the state legislature established the California Reclamation Board (The Reclamation Board) to exercise jurisdiction over reclamation districts and levee plans. That year, the state approved and began implementation of the Sacramento River Flood Control Project (SRFCP). The ambitious project included the construction of levees, weirs, and bypasses along the river to channel floodwaters away from population centers. Under the SRFCP, new reclamation districts (RDs) were created, including RD 1000 which encompasses the project area. This RD oversees approximately 55,000 ac. in the project area vicinity. RD 1000 was at first largely controlled by the Natomas Company, which was formed in 1851 in Sacramento County to supply water for placer mining and irrigation. It later became involved in dredging for gold and expanded its water supply business. The Natomas Company later became involved in land reclamation in part as a rebuttal of criticism that farmland was being destroyed by the company's gold dredging activities (Dames & Moore 1994).

The infrastructure of RD 1000 was completed in the 1920s. It includes levees, drainage canals, pumps, irrigation systems, agricultural fields, and roads, as well as remnant natural features. The originally constructed features included levees and exterior drainage canals, an interior drainage canal system, nine pumping plants, a series of levee and interior roads, and unpaved rights-of-way between the farm fields. As a system, RD 1000 was identified as eligible for inclusion in the National Register of Historic Places as a Rural Historic Landscape District (Peak & Associates 1997).

NATIVE AMERICAN COMMUNITY OUTREACH

The PRC Sections 21080.1, 21080.3.1, and 21080.3.2 require public agencies to consult with the appropriate California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of mitigating impacts to cultural resources. To meet PRC requirements, on December 19th, 2022, SAS emailed a letter and a map depicting the project area and surrounding vicinity to the NAHC requesting a Sacred Lands File (SLF) search, and a list of Native American community representatives who might have an interest in, or concerns with the proposed Project (Attachment B). As of this report, the NAHC has yet to respond. However, when the NAHC does provide the results of the SLF search and tribal contacts list request, SAS will prepare an addendum to this report as necessary.

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM RECORDS SEARCH

On December 22nd, 2022, the Northeast Information Center (NEIC) of the California Historical Resources Information System, provided the results of a record search for the Project (NWIC File No. D22-426) (Attachment C). The NWIC indicated that no cultural resources were known to be present within the project area, but that one historic-era resource, P-51-000252 (Natomas Central Municipal Water Company North Main Canal), had been documented within a half-mi. search area. The NWIC research also noted that one previous study incorporated the project area and that an additional investigation had occurred outside the project area but within the half-mi. search radius.

ADDITIONAL RESEARCH

To ascertain patterns of land ownership and use within the project area and identify potential undocumented sites, cultural deposits, and sensitive landforms, SAS conducted additional archival research focused on historical mapping and land transfer records. This consisted of reviews of the Bureau of Land Management's General Land Office (GLO) archives including patent records and plat maps, historical USGS topographic quadrangle maps, and other archival sources.

The 1868 GLO plat of Township 11 North, Range 4 East shows no developments within or near the project area with the exception of a roadway on the approximate alignment of present-day State Route 99/70. Several sloughs, and creek channels are depicted in the surrounding area and the lands within the plat were generally noted as being "level and rolling". The only other natural feature depicted in the general vicinity was "Wilson's Lake" several miles to the northwest in the southeast ¼ of Section 18. Similarly, USGS topographic mapping, and aerial photographs do not show any developments within the project area throughout most of the 20th century. Aerial photography demonstrates that the first buildings to appear in the project area were constructed sometime between the late 1960s and early-mid 1980s.

Patent records maintained by the GLO demonstrate that all of Section 28 was granted to the State of California in 1871 as part of a 47,363-ac. grant under the 1850 Swamp and Overflow Lands Act (Arkansas Swamp Lands Act) (9 Stat. 519). On September 28, 1850, the United States enacted the Arkansas Swamp Lands Act. This legislation gave the states, including California, title to all the swamp and overflowed lands. Starting in 1855, the California Legislature authorized the sale of these lands, and the process was overseen by the state Surveyor General, the predecessor agency of the California State Lands Commission. California received title to over two million acres of swamp and overflowed lands, which was loosely defined as lands that required drainage or levees in order to be cultivated.

FIELD SURVEY

Methods

On December 28th, 2022, SAS archaeologist Karena Skinner, and Karen Fothergill conducted an intensive pedestrian survey of the project area utilizing pedestrian transects spaced no greater than 10 meters apart. A sub-meter accurate Trimble GPS unit was utilized to verify project area boundaries and to record locations of landscape features and cultural resources.

Results

The project area consists of recently tilled agricultural fields, an existing industrial/agricultural complex, and roadway margins. In areas not completely covered with development or landscaping (i.e., road margins), ground visibility was variable but generally high; between 40% and 50%. Although several fragments of modern debris (e.g., bottle glass) were noted on the ground surface, no prehistoric or historic-era sites, features, or artifacts or potentially sensitive soil types or landscape formations were noted. In addition, no creek channels or other perennial or seasonal water sources (potentially attractive areas for prehistoric peoples) were noted within or adjacent to the project area.

SUMMARY AND RECOMMENDATIONS

Archival research and an intensive field survey did not identify any prehistoric or historic-period cultural resources within the project area. Map and aerial photography reviews, and the field survey also did not identify any potentially sensitive landforms or water sources in the project area, suggesting a low level of sensitivity for containing prehistoric materials. Concerning historic period resources, historic mapping, aerial photographs, archival research, and the field survey indicate that no developments of any kind occurred in the project area at least until the late 1960s or later. Consequently, SAS proposes a low level of sensitivity for the project area to contain potentially significant historic-era sites, features, or artifacts. Due to a lack of identified cultural resources and sensitive landforms, SAS recommends that the proposed project would have *no impact on historical resources* per CEQA.

If human remains or any associated funerary artifacts are discovered during construction, all work must cease within the immediate vicinity of the discovery. In accordance with the California Health and Safety Code (Section 7050.5), the Sutter County Sheriff/Coroner must be contacted immediately. If the Coroner determines the remains to be Native American, the Coroner will notify the Native American Heritage Commission, which will in turn appoint a Most Likely Descendent (MLD) to act as a tribal representative. The MLD will work with the Applicant and a qualified archaeologist to determine the proper treatment of the human remains and any associated funerary objects. Construction activities will not resume until either the human remains are exhumed, or the remains are avoided via Project construction design change.

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ATTACHMENT A

Figures

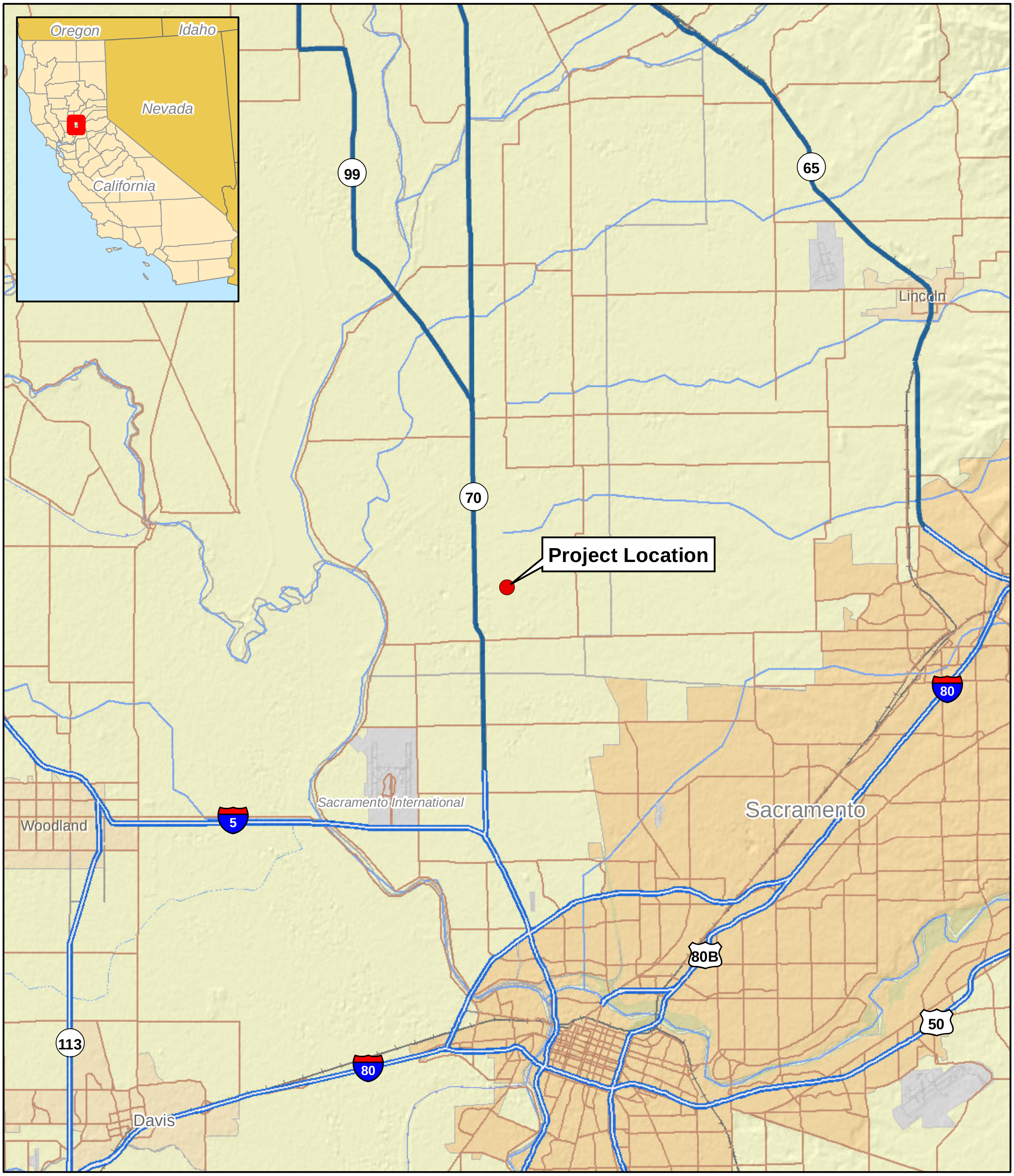


Figure 1. Project Vicinity Map.

● Pacific Avenue Project Location

Sources: *USA Base Map* [layer],*Data and Maps* [CD]. ESRI, 2006.

1:250,000

0 3 Miles

0 6 Kilometers

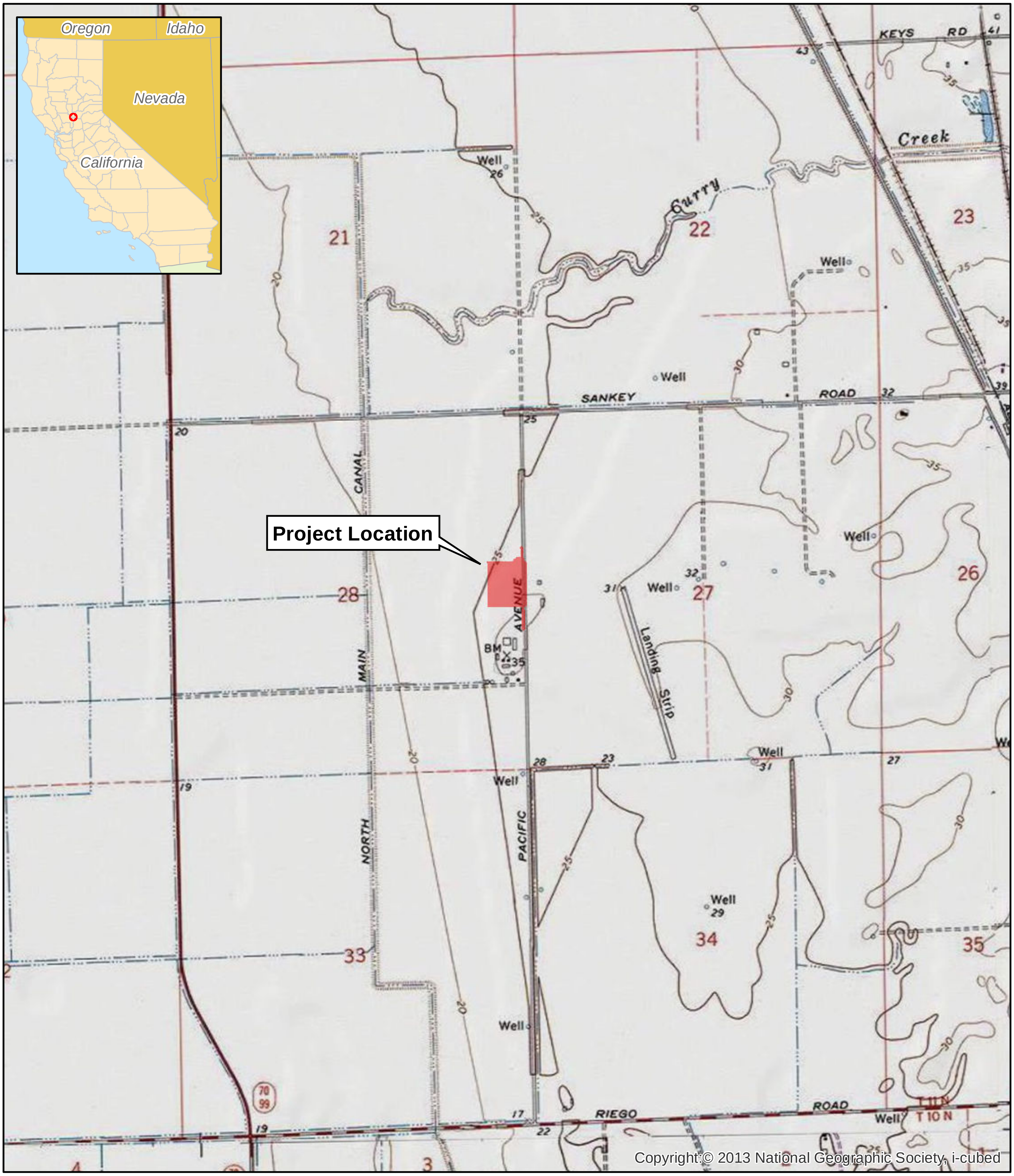


Figure 2. Project Location Map.

Pacific Avenue Project Area

T11N, R04E, Section 28.
Verona 7.5' Series Quadrangle, USGS, 1968, p.r. 1978.

1:24,000

0.5 Miles

1 Kilometers

SAS
ARCHAEOLOGICAL SERVICES

Figure 3. Project Area Map.

Pacific Avenue Project Area

Total Acres: 9.90

1:2,400

0 200 Feet

0 100 Meters

ATTACHMENT B

Native American Community Outreach

P.O. Box 367
Elmira, CA 95625

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

December 19, 2022

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691

Re: 7235 Pacific Avenue Project, Community of Pleasant Grove, Sutter County, California

To Whom It May Concern:

Basecamp Environmental, Inc., has retained Solano Archaeological Services, LLC (SAS) to conduct a cultural resources inventory of an approximately 10-acre project area located in the community of Pleasant Grove, Sutter County, for the proposed 7235 Pacific Avenue Project (a truck storage yard) (the Project). The project area is located along Pacific Avenue in Township 11 North, Range 4 East, Section 28 as depicted on the attached *Verona, California* USGS 7.5' topographic quadrangle map.

The cultural investigation will include an intensive survey and we would like to request a Sacred Lands File (SLF) review for any known but unrecorded cultural resources or sensitive properties within or near the project area. If you could also please provide a list of appropriate Native American individuals/organizations that may have knowledge of cultural resources in the vicinity, we would greatly appreciate it. Please be aware that this SLF review request and California Environmental Quality Act outreach effort to local tribal representatives is for planning purposes only.

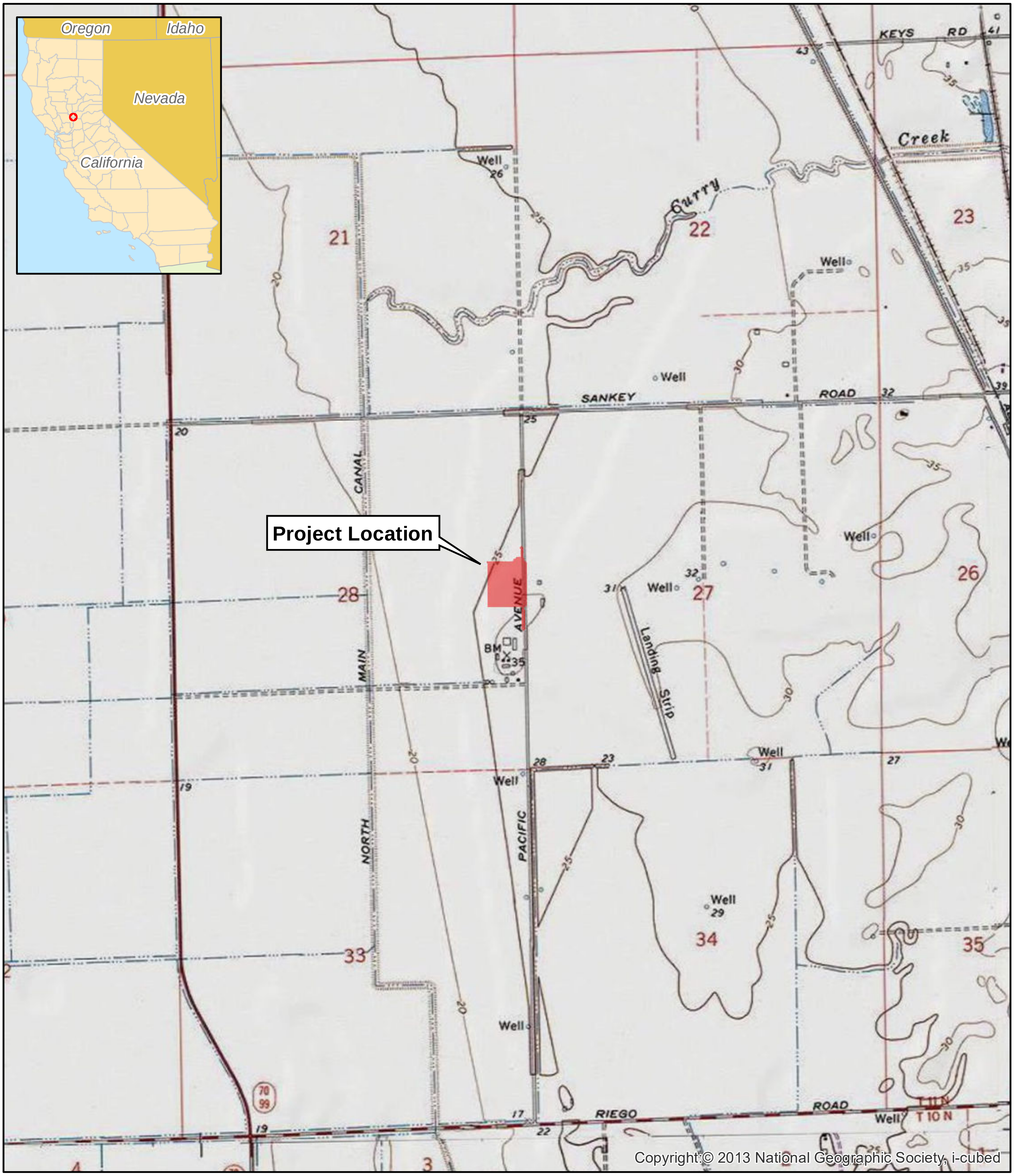
Please email results back to brian@solanoarchaeology.com**.**

If you have any questions, feel free to contact me by email or via phone at 530-417-7007.

Regards,

Brian Ludwig, Ph.D.
Principal Investigator

Enc. USGS topographic map



Project Location Map.

Pacific Avenue Project Area

T11N, R04E, Section 28.
Verona 7.5' Series Quadrangle, USGS, 1968, p.r. 1978.

1:24,000

0.5 Miles

1 Kilometers

SAS

ATTACHMENT C

Records Search Documentation

California Historical Resources Information System

BUTTE
GLENN
LASSEN
MODOC
PLUMAS
SHASTA

SIERRA
SISKIYOU
SUTTER
TEHAMA
TRINITY

Northeast Information Center
1074 East Avenue, Suite F
Chico, California 95926
Phone (530) 898-6256
neinfocntr@csuchico.edu

December 20, 2022

Solano Archaeological Services, LLC
P.O. Box 367
Elmira, CA 95625
Attn: Jason Coleman

IC File # D22-426
Priority Records Search

RE: 7235 Pacific Ave. Project
T11N, R4E, Sections 27 & 28 MDBM
USGS Verona (1978) 7.5' & Knights Landing (1952) 15' quadrangle maps
11 acres (Sutter County)

Dear Mr. Coleman,

In response to your request, a records search for the project cited above was conducted by examining the official maps and records for cultural resources and reports in Sutter County. Please note, the search includes the requested 1/2-mile radius surrounding the project area.

RESULTS:

Resources within project area:	No resources were located in the project area
Resources within 1/2-mile radius:	51-000252
Reports within project area:	NEIC-005777
Reports within 1/2-mile radius:	NEIC-007173

As indicated on your data request form, the locations of resources and reports are provided in the following format: ☒ Custom Maps ☐ GIS Data ☐ N/A

Resource Database Printout (list):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Database Printout (details):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Report Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Other Reports: *	☐ enclosed	☒ not requested	☐ nothing listed
Resource Record Copies:	☐ enclosed	☐ not requested	☒ nothing listed
Report Copies:	☐ enclosed	☒ not requested	☐ nothing listed
Built Environment Resources Directory:	☐ enclosed	☐ not requested	☒ nothing listed
Archaeological Determinations of Eligibility:	☐ enclosed	☐ not requested	☒ nothing listed
CA Inventory of Historic Resources (1976):	☐ enclosed	☐ not requested	☒ nothing listed
Caltrans Bridge Survey:	☐ enclosed	☒ not requested	☐ nothing listed
Ethnographic Information:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Literature:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Maps:	☐ enclosed	☒ not requested	☐ nothing listed
Local Inventories:	☐ enclosed	☒ not requested	☐ nothing listed
GLO and/or Rancho Plat Maps:	☐ enclosed	☒ not requested	☐ nothing listed
Shipwreck Inventory:	☐ enclosed	☒ not requested	☐ nothing listed

Notes: ***These are classified as studies that are missing maps or do not have a field work component.**
Please refer to the NRCS Soil Survey website for current soil survey information:
https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if it is for public distribution.

The provision of California Historical Resources Information System (CHRIS) Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archaeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation (OHP), or the State Historical Resources Commission.

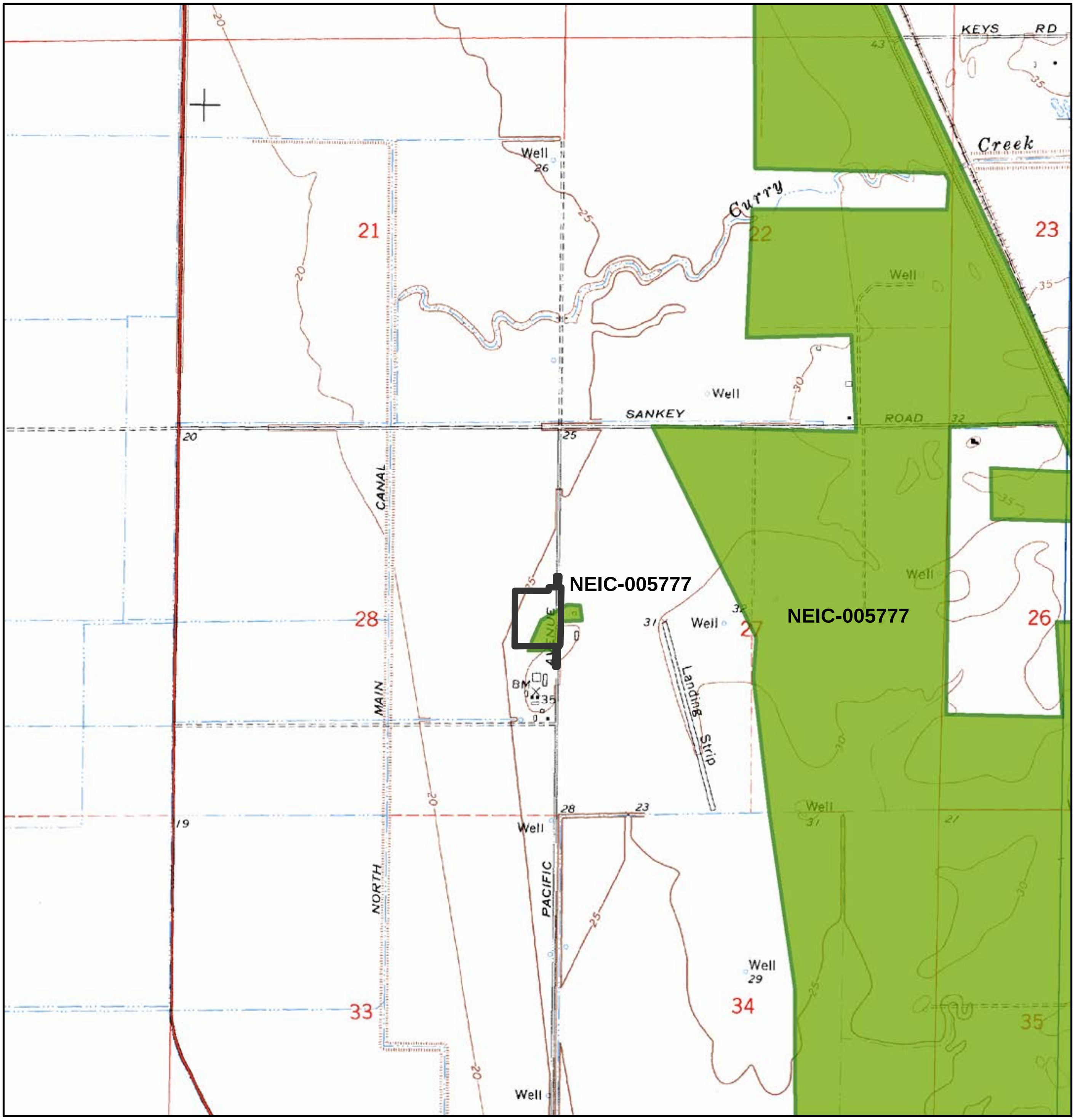
Due to processing delays and other factors, it is possible that not all of the historical resource reports and resource records that have been submitted to the OHP are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

An invoice will follow from Chico State Enterprises for billing purposes. Thank you for your concern in preserving California's cultural heritage, and please feel free to contact us if you have any questions or need any further information.

Sincerely,

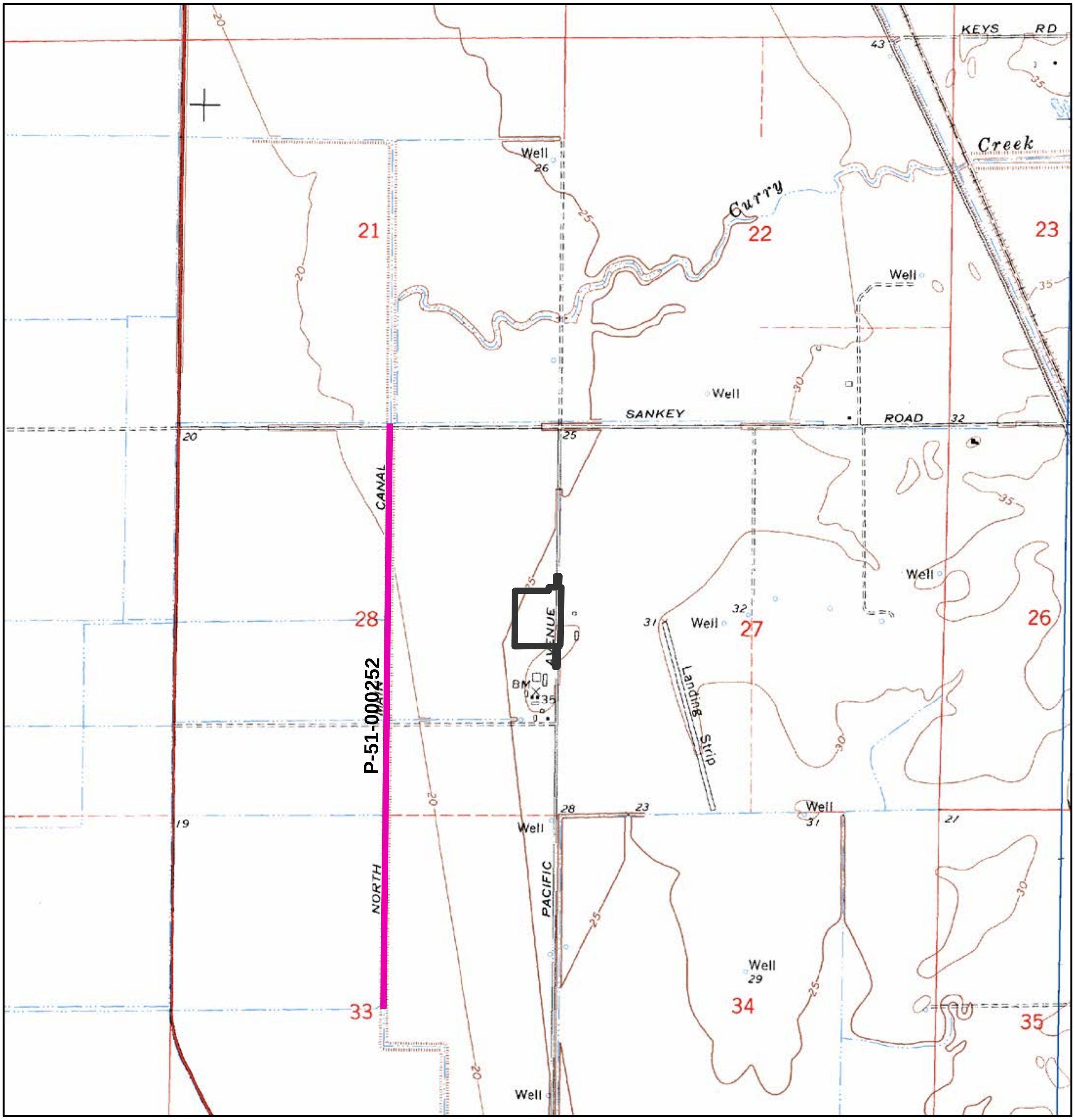
Ashlyn Weaver

Ashlyn Weaver, M.A.
Assistant Coordinator & GIS Specialist
Northeast Information Center
(530) 898-6256



May depict confidential cultural resource locations.
Do not distribute.

Northeast Information Center
Record Search Results
7235 Pacific Ave. Project
IC File #D22-426
Report Locations



May depict confidential cultural resource locations.
Do not distribute.

Miles
0 0.3 0.6
N
0 0.35 0.7
Kilometers

Northeast Information Center
Record Search Results
7235 Pacific Ave. Project
IC File #D22-426
Resource Locations

D22-426
Resources

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
NEIC-005777	Other - U.S. Army Corps of Engineers DACW05-92-C-0126	1994	Nilsson, Elena, Jerald J. Johnson, Michael S. Kelly, Russell Bevill, Amy Huberland, Mark Hale, and Margaret E. Scully	Archaeological Inventory Report, Natomas Locality, Cultural Resources Inventory and Evaluation, American River Watershed Investigation, El Dorado, Placer, Sacramento, and Sutter Counties, California	Dames & Moore	51-000083, 51-000084

Resource Detail: P-51-000252

Identifying information

Primary No.: P-51-000252
Trinomial:
Name: Natomas Central Municipal Water Company North Main Canal
Other IDs:

Type	*Name*
Resource Name	Natomas Central Municipal Water Company North Main Canal
Other	14-MP-238-1

Cross-refs:

Attributes

Resource type: Site
Age: Historic
Information base: Survey
Attribute codes: HP20 (Canal/aqueduct) - canal
Disclosure: Not for publication
Collections: No
Accession no(s):
Facility:

General notes

Recording events

	Date	*Recorder(s)*	*Affiliation*	*Notes*
-	3/3/2015	Mark Carper	Bureau of Reclamation	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
NEIC-013740	2015	A Cultural Resource Survey Report for the Natomas Central Mutual Water Company R Drain Check Structure Automation Project, Sutter County, California	Bureau of Reclamation

Location information

County: Sutter
USGS quad(s): VERONA
Address:
PLSS: T11N R4E SW¼ of NE¼ of Sec. 28 MDBM
T11N R4E NW¼ of SW¼ of Sec. 28 MDBM
UTMs: Zone 10 627405mE 4292115mN NAD83

Management status

Database record metadata

	Date	*User*	
Entered:	12/30/2017	aspringsteen	
Last modified:	12/30/2017	aspringsteen	
IC actions:	*Date*	*User*	*Action taken*
	12/30/2017	aspringsteen	Initial data entry

Record status: Database Complete

APPENDIX D
TRAFFIC IMPACT ANALYSIS

FEHR & PEERS

Memorandum

Date: March 22, 2022

To: Ms. Bailey Setzler – Environmental Science Associates
Ms. Cheri Velzy – Environmental Science Associates

From: David Manciati – Fehr & Peers

Subject: Platinum Express Truck Yard – Draft Traffic Study

RS21-4134

Fehr & Peers has completed a traffic study for the Platinum Express Truck Yard project. The project is located on approximately 8.33 acres on the west side of Pacific Avenue between Sankey Road and W. Riego Road in Sutter County. The project would keep approximately 16,100 square feet of existing building space to be leased to a truck/trailer repair business. The project would also include pavement of 115 truck parking spaces and 109 car parking spaces.

This memorandum documents the existing traffic setting, project travel characteristics, operations analysis, vehicle miles traveled (VMT) impact assessment, and a site access review.

Key Findings

This section summarizes key findings from the traffic study. The sections that follow provide additional analysis detail. The key findings include:

- Sankey Road/State Route (SR) 99 currently operates worse than Sutter County's adopted LOS threshold during both peak hours, with unacceptable operations occurring from the side street. The project would exacerbate unacceptable operations.
- Average maximum vehicle queues are expected to be less than corresponding storage lengths at most study intersections except at the Sankey Road/SR 99 intersection. The intersection is designed with a refuge area between the northbound and southbound SR 99 travel lanes to allow drivers making left turns from SR 99 or through movements on Sankey Road to navigate the intersection in two stages. Microsimulation shows that the eastbound through movement from the refuge area queues upstream, resulting in vehicles queueing in the southbound SR 99 left-turn lane and eastbound Sankey Road approach. However, the vehicle queues do not exceed available storage or impact

southbound SR 99 operations. The project is forecasted to add one vehicle to the southbound left-turn movement during the AM and PM peak hours, which would contribute to the southbound left-turn vehicle queue. However, the vehicle queue would not exceed available storage.

- To reduce vehicle delay at Sankey Road/SR 99 to existing conditions levels, the project should be conditioned to prohibit all inbound and outbound traffic to and from SR 99 (or areas west of SR 99) from using Sankey Road. Project traffic should, instead, use W. Riego Road and Pacific Avenue. This improvement measure would require the applicant to fully fund installation of required directional signing (on-site or off-site) and conversion of project driveways to be left-in and right-out only.
- The project access analysis showed that northbound left-turn lanes into the project site "may be desirable" (see discussion related to AASHTO left-turn treatment guidance). In addition, a shared outbound left- and right-turn lane is adequate at both project driveways to accommodate the low egress volumes.
- The sight distance evaluation showed that project driveways maintain adequate sight distance to approaching vehicles under Existing Plus Project conditions.
- Site access/circulation evaluation was provided by the applicant. The vehicles shown in the site plan (February 10, 2022) can be accommodated without encroachment.
- The existing cross section on Pacific Avenue is consistent with Sutter County Standard Drawing H-3 for a rural local road. In addition, the project driveways on Pacific Avenue are set back to provide future right-of-way for a 107-foot urban minor arterial per the *Sutter Pointe Specific Plan*, providing compliance with Implementation Program M 2-B in the Sutter County General Plan. The County will work with the applicant to condition the project consistent with Implementation Program M 2-E in the Sutter County General Plan.
- According to AASHTO's Green Book 7th Edition (2018), Pacific Avenue does not need to be widened to accept project truck traffic. If the ADT on Pacific Avenue increases above 2,000 vehicles per day, AASHTO recommends widening the traveled way to 24 feet.
- Regarding bicycle and pedestrian facilities, the County will work with the applicant to condition the project consistent with the *Sutter Pointe Specific Plan* and Implementation Program M 5-C in the Sutter County General Plan.
- The proposed project would result in workplace VMT per job that does not meet CEQA's significance criteria of achieving a level 15 percent below the regional average VMT per employee. A transportation demand management (TDM) program is presented as a recommended improvement. However, the improvement would not reduce workplace VMT per job to 15 percent below the regional average.

Regulatory Setting

Senate Bill 743

SB 743 creates or encourages several statewide changes to the evaluation of transportation and traffic impacts under CEQA. First, it directs the Governor's Office of Planning and Research (OPR) to amend the State CEQA Guidelines to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the new metrics beyond TPAs. In the amended State CEQA Guidelines, OPR selected VMT as the preferred transportation impact metric and applied its discretion to recommend the use of VMT statewide. The California Natural Resources Agency certified and adopted the amended State CEQA Guidelines in December 2018. The amended State CEQA Guidelines state that "generally, VMT is the most appropriate measure of transportation impacts" and the provisions requiring the use of VMT apply statewide as of July 1, 2020.

SB 743 also added Section 21099 to the Public Resources Code, which states that automobile delay, as described by level of service (LOS) or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment upon certification of the State CEQA Guidelines by the California Natural Resources Agency. Since the amended State CEQA Guidelines were certified in December 2018, changes in LOS or similar measures of vehicular capacity or traffic congestion are not considered a significant impact on the environment.

Technical Advisory on Evaluating Transportation Impacts in CEQA

To aid in SB 743 implementation, OPR released a Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) in December 2018. The Technical Advisory provides advice and recommendations to CEQA lead agencies on how to implement SB 743 changes. This includes technical recommendations regarding the assessment of VMT, thresholds of significance, VMT mitigation measures, and screening thresholds for certain land use projects. Lead agencies may consider and use these recommendations at their discretion.

State Route 99 Transportation Concept Report

Transportation Concept Reports (TCRs) are planning documents that identify existing and future route conditions, as well as future needs, for each route on the state highway system. Per the TCR for SR 99 (July 2017), the highway is expected to operate at LOS D within the study area in 2035. The TCR also lists two future projects within the study area, including construction of the Placer Parkway/SR 99 interchange near Sankey Road and construction of SR 99 bus/carpool lanes from I-5 through Sankey Road.

Sacramento Area Council of Governments

SACOG is the MPO governing the six-county Sacramento region consisting of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties and their 22 cities. SACOG is responsible for the preparation of, and updates to, the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the associated Metropolitan Transportation Improvement Program (MTIP) for the six-county region. The SACOG 2020 MTP/SCS provides a 20-year transportation vision and corresponding list of transportation projects. The MTIP identifies short-term projects (i.e., projects with a 7-year horizon) in more detail. The current SACOG 2020 MTP/SCS was adopted by the SACOG board on November 18, 2019.

Sutter County General Plan

The Sutter County General Plan (April 2011) establishes the County's LOS policy for county roads. Policy M 2.5 is included below:

> "Develop and manage the County roadway segments and intersections to maintain LOS D or better during peak hours, and LOS C or better at all other times. Adjust for seasonality. These standards shall apply to all County roadway segments and intersections, unless otherwise addressed in an adopted specific plan or community plan"

Sutter Pointe Specific Plan

The Sutter Pointe Specific Plan, which was approved by the Sutter County Board of Supervisors in June 2009, encompasses over 7,500 acres of land adjacent SR 99, north of the Sutter County line. The plan proposes a mix of land uses, including employment centers, different housing types, shopping, recreation amenities, schools, community services, open space, and various public uses. In October 2014, the Board of Supervisors approved an amendment to the *Sutter Pointe Specific Plan* affecting the eastern plan area located south of Sankey Road, North of Riego Road and east of Pacific Avenue. In November 2020, the Board of Supervisors approved *Lakeside at Sutter Pointe*, which is the first phase of development in the Specific Plan.

The proposed project lies within the *Sutter Pointe Specific Plan* and is therefore subject to its design guidelines.

Existing Traffic Setting

This section describes the existing setting related to roadway, bicycle, and pedestrian facilities, which is the baseline scenario upon which project impacts are evaluated.

Study Area

The transportation study area was selected based on intersection and roadway proximity to the proposed project site and truck routes to and from the site. **Figure 1** shows the study area, including the five study intersections and the location of the proposed Platinum Express truck yard. The study area also includes bicycle and pedestrian facilities near the proposed project. The study intersections are as follows:

1. Sankey Road/State Route 99
2. Sankey Road/Pacific Avenue
3. W. Riego Road/State Route 99 Southbound Ramps
4. W. Riego Road/State Route 99 Northbound Ramps
5. W. Riego Road/Pacific Avenue

The W. Riego Road/SR 99 ramp terminal intersections are traffic signal controlled, while the remaining study intersections are side-street stop controlled.

The four study roadway segments listed below are two-lane rural roadways.

1. Sankey Road – SR 99 to Pacific Avenue
2. Pacific Avenue – South of Sankey Road
3. Pacific Avenue – North of W. Riego Road
4. W. Riego Road – SR 99 to Pacific Avenue

Roadway Network

The study area is in a rural setting and is served by State Route 99 and local, collector, and arterial rural roads. The key roadways near the proposed project are described below.

- State Route 99 – is a major route that spans California's Central Valley. Near the project site, SR 99 is a four-lane freeway with a posted speed limit of 65 MPH. It intersects Sankey Road as a side-street stop-controlled intersection.
- Pacific Avenue – is a north-south rural local road east of SR 99 that extends between Sankey Road and W. Riego Road. The proposed project fronts Pacific Avenue about one-quarter mile south of Sankey Road. The posted speed limit is 55 MPH.
- Sankey Road – is a two-lane east-west roadway in Sutter County that extends from Garden Highway to the Placer County line. Between SR 99 and Pleasant Grove Road, Sankey Road is considered a rural minor arterial. The posted speed limit is 55 MPH in the study area.
- W. Riego Road – is a two-lane east-west road that extends from its western terminus at Garden Highway to the Placer County line, where it becomes Baseline Road. West Riego Road is considered a rural major collector between SR 99 and Pleasant Grove Road. It has a posted speed limit of 55 MPH in the study area.

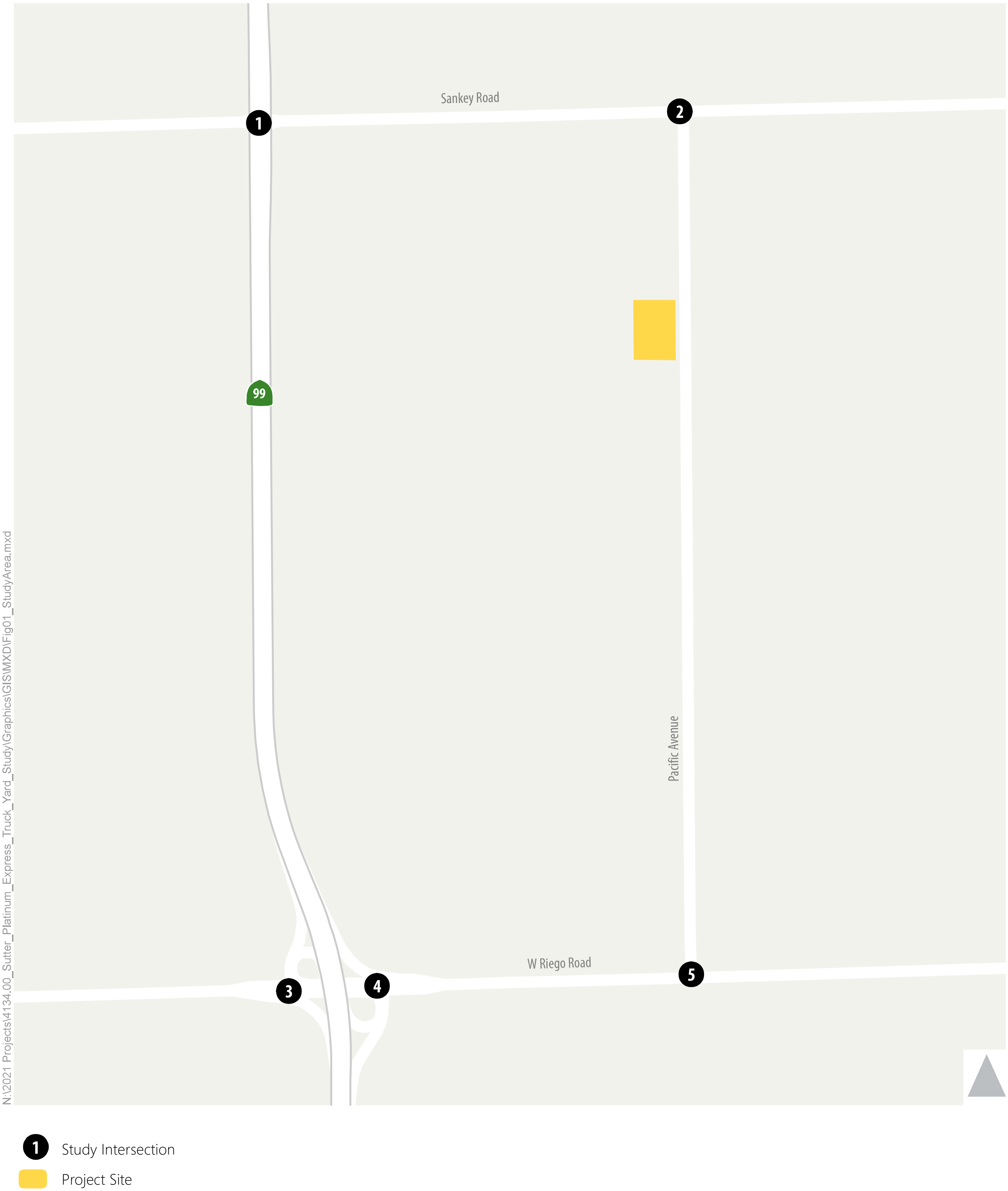


Figure 1

Study Area

Truck Routes

Within Sutter County, State Route 99, State Route 70, State Route 113, a portion of State Route 20, and Tudor Road east of State Route 113 have been designated as truck routes by Caltrans and are included in the National Network for Surface Transportation Assistance Act (STAA) of 1982. Posted signs within the study area indicate that STAA trucks are permitted on W. Riego Road between SR 99 and Pacific Avenue and on Pacific Avenue.

Sutter County's Code of Ordinances also establishes nine roadway segments within the unincorporated county as truck routes that "shall not be restricted in use for driving, operating, or towing by commercial vehicles with legal loads." Additionally, the Code of Ordinances establishes Railroad Avenue between Oswald Road and Oswald Avenue as having a 15-ton weight limit. None of the County truck or restricted routes are near the project.

The most recent data published on Caltrans' website is from 2020 and shows that SR 99 carries about 36,000 vehicles per day north of W. Riego Road. The data also shows that approximately 8.7 percent of daily vehicles are trucks (light or heavy).

Traffic Data Collection

New traffic counts were not collected in 2021 due to the ongoing effect of the COVID-19 pandemic on travel demand. Instead, per Sutter County staff direction, this traffic study relies on traffic data utilized in the Lakeside at Sutter Pointe project. Midweek AM (7:00 to 9:00) and PM (4:00 to 6:00) peak period traffic counts (including bikes, pedestrians, and heavy vehicles) were collected at all study intersections between January 2018 and November 2019. In addition, 24-hour roadway counts were collected on Sankey Road, W. Riego Road, and Pacific Avenue within the study area on August 29, 2019.

Figure 2 shows existing conditions lane configurations and traffic volumes for the five study intersections. In this study, the SR 99 intersections (i.e., at Sankey and at W. Riego Road ramp terminals) have AM and PM peak hours of 7:00 to 8:00 AM and 4:30 to 5:30 PM, respectively.

Level of Service Definitions

As previously stated, the *Transportation and Circulation* element of the Sutter County General Plan includes a policy for level of service (LOS). Although vehicle LOS analysis cannot be used for determining CEQA impacts, it is used in this study to evaluate consistency with General Plan policy and to identify potential improvement projects where LOS is deficient.

Each study facility was analyzed using the concept of LOS. LOS is a qualitative measure of traffic operating conditions whereby a letter grade, from A (representing free-flow vehicular traffic conditions with little to no congestion) to F (oversaturated conditions where traffic demand exceeds capacity resulting in long queues and delays), is assigned. These grades represent the perspective

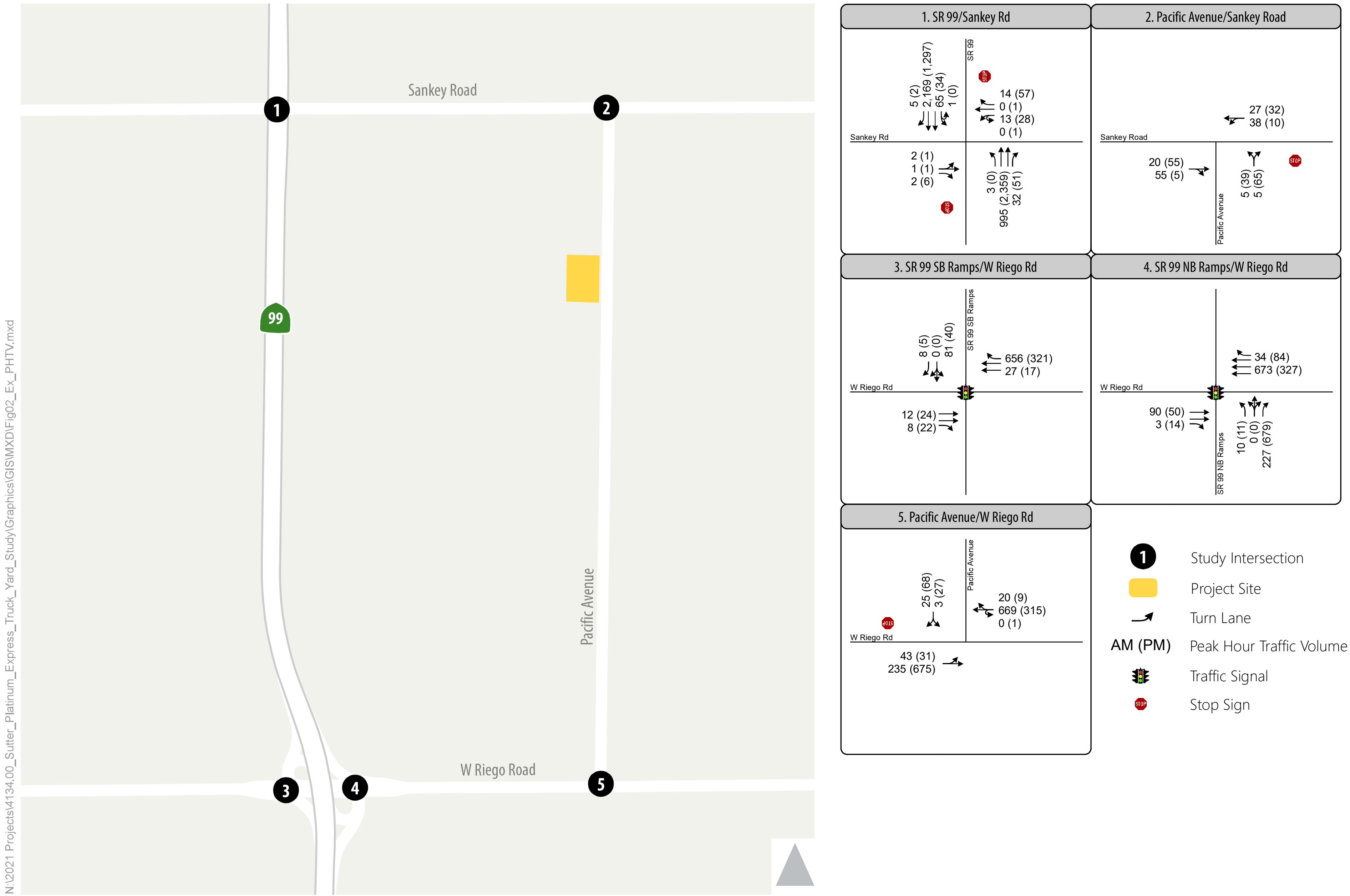


Figure 2

Peak Hour Traffic Volumes and Lane Configurations - Existing Conditions of drivers and are an indication of the comfort and convenience associated with driving. **Table 1** displays the delay range associated with each LOS category for signalized and unsignalized intersections as presented in the *Highway Capacity Manual 6th Edition* (Transportation Research Board, 2016). **Table 2** shows the LOS daily volume thresholds for various roadway facility types in Sutter County as used in the Sutter County General Plan.

Table 1: Level of Service Definitions – Intersections

Level of Service	Description (at Signalized Intersections)	Average Control Delay[1]	
		Signalized	Unsignalized
A	Volume-to-capacity ratio is low and either progression is exceptionally favorable or cycle length is very short. Most vehicles arrive during the green phase and travel through the intersection without stopping.	≤ 10	< 10.0
B	Volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.	>10 to 20	> 10.0 to 15.0
C	Progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 to 35	> 15.0 to 25.0
D	Volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35 to 55	> 25.0 to 35.0
E	Volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	>55 to 80	> 35.0 to 50.0
F	Volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80	> 50.0

Notes: [1] Average control delay presented in seconds per vehicle. Delay values are rounded to the nearest second and evaluated for LOS based on the above thresholds (i.e., 10 seconds per vehicle = LOS A)
Source: Highway Capacity Manual, 6th Edition (Transportation Research Board, 2016)

Table 2: Level of Service Criteria – Roadway Segments[1]

Jurisdiction	Facility Type	Number of Lanes & Classification	Daily Volume Threshold				
			LOS A	LOS B	LOS C	LOS D	LOS E
Sutter County	Rural Roadway	2 (2R)	-	-	7,200	12,200	20,800
	Urban Arterial	2 (2U)	-	-	13,170	14,800	16,460
		4 (4U)	-	-	26,340	29,640	32,930
	Expressway	4 (4E)	-	-	38,900	47,400	51,600

Notes: [1] Both number of lanes and daily volume thresholds are two-way totals.
Source: Sutter County General Plan, 1996; Fehr & Peers, 2008.

Intersection Operations

Intersection operations at the five study intersections were quantitatively analyzed under AM and PM peak hour conditions using the Synchro 11 software, which applies the analysis procedures contained in the *Highway Capacity Manual, 6th Edition*. Synchro's SimTraffic microsimulation module was used to analyze Sankey Road/SR 99 due to the intersection's unique lane configurations. **Table 3** displays the existing conditions peak hour intersection operations at the study intersections (refer to Appendix A for technical calculations). The operations analysis accounted for the interaction of automobiles, pedestrians, bicyclists, and heavy vehicles.

Table 3: Intersection Operations – Existing Conditions

Intersection	Traffic Control	Peak Hour	Existing Conditions	
			Delay[1]	LOS[1]
1. Sankey Road/State Route 99	SSSC	AM	**2 (41)**	**A (E)**
		PM	**3 (123)**	**A (F)**
2. Sankey Road/Pacific Avenue	SSSC	AM	3 (9)	A (A)
		PM	5 (10)	A (A)
3. W. Riego Road/State Route 99 SB Ramps	Signal	AM	8	A
		PM	7	A
4. W. Riego Road/State Route 99 NB Ramps	Signal	AM	5	A
		PM	7	A
5. W. Riego Road/Pacific Avenue	SSSC	AM	1 (15)	A (C)
		PM	2 (16)	A (C)

Notes: LOS = Level of Service. SSSC = Side-Street Stop Controlled. **Bold** indicates exceedance of Sutter County LOS policy.
[1] For signalized intersections, average delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay.
Source: Fehr & Peers, 2022

As shown in Table 3, Sankey Road/SR 99 is the only study intersection that operates below Sutter County's adopted LOS threshold under existing conditions. The highest-delay movement during the AM peak hour was the eastbound through, while the highest-delay movement during the PM peak hour was the westbound U-turn.

Table 4 shows the peak hour average maximum queue length for key movements at each study intersection. These queue estimates are based on ten microsimulation model runs using Synchro's SimTraffic microsimulation module.

Intersection 1 (Sankey Road/SR 99) has unique geometry such that certain vehicles (e.g., left turns from SR 99 or through movements on Sankey Road) require two stages to move through the intersection. Such vehicles complete their first movement by entering a 75-foot vehicle refuge area between the SR 99 northbound and southbound lanes, and they complete their second movement upon exiting the refuge area. Table 4 disaggregates key movements at Sankey Road/SR 99 to capture queue lengths within the refuge area.

As shown in Table 4, all average maximum queue values are less than the corresponding storage length under existing conditions, except for the eastbound left/through from the vehicle refuge area at the Sankey Road/SR 99 intersection. The microsimulation shows that vehicles fill the eastbound vehicle refuge area and cause upstream queuing on the SR 99 southbound left and Sankey Road eastbound through movements about 1% of the AM peak hour and 7% of the PM peak hour (average of ten microsimulation runs).

Table 4: Average Maximum Queue Lengths – Existing Conditions

Intersection	Movement	Storage Length (feet)	Average Maximum Queue[1] (feet)	
			AM Peak Hour	PM Peak Hour
1A. Sankey Road/State Route 99 (Southbound)	EB T	>1,000	25	25
	WB LT	75	25	25
	SB L	540	25	25
1B. Sankey Road/State Route 99 (Northbound)	EB LT	75	**75**[2]	**75**[2]
	WB T	>1,000	50	75
	NB L	535	25	25
2. Sankey Road/Pacific Avenue	EB TR	>1,000	25	25
	WB LT	>1,000	25	25
	NB LR	>1,000	50	75
3. W. Riego Road/State Route 99 Southbound Ramps	EB T	>1,000	25	25
	WB T	995	50	50
	SB LR	330	75	50
	SB R	>1,000	50	50
4. W. Riego Road/State Route 99 Northbound Ramps	EB T	995	75	75
	WB T	>1,000	175	175
	NB L	565	25	25
	NB LR	>1,000	100	200
	NB R	565	50	175

Table 4: Average Maximum Queue Lengths – Existing Conditions

Intersection	Movement	Storage Length (feet)	Average Maximum Queue[1] (feet)	
			AM Peak Hour	PM Peak Hour
5. W. Riego Road/Pacific Avenue	EB LT	>1,000	75	50
	WB TR	>1,000	25	25
	SB LR	>1,000	50	75

Notes: **Bold** indicates exceedance of storage length.
[1] Average maximum queue is based on an average of ten microsimulation runs using Synchro's SimTraffic microsimulation module.
[2] The microsimulation shows that vehicles fill the eastbound vehicle refuge area and cause upstream queuing on the the SR 99 southbound left and Sankey Road eastbound through movements about 1% of the AM peak hour and 7% of the PM peak hour (average of ten microsimulation runs).
Source: Fehr & Peers, 2022

Roadway Segment Operations

Study roadway segments were analyzed by comparing average daily traffic volume to daily volume thresholds specific to the facility type. The use of daily traffic volume for roadway segment operations analysis is the preferred methodology in Sutter County. **Table 5** shows existing daily traffic, LOS, and volume-to-capacity ratio for the four study roadway segments. As shown, all study roadway segments operate at LOS D or better.

Table 5: Roadway Segment Analysis – Existing Conditions

Roadway Segment	Existing Conditions			
	Lanes	Classification[1]	ADT	LOS/VC
1. Sankey Road – SR 99 to Pacific Avenue	2	2R	1,128	C / 0.05
2. Pacific Avenue – South of Sankey Road	2	2R	1,341	C / 0.06
3. Pacific Avenue – North of W. Riego Road	2	2R	1,185	C / 0.06
4. W. Riego Road – SR 99 to Pacific Avenue	2	2R	11,272	D / 0.54

Notes: ADT = average daily traffic. LOS = Level of Service. VC = volume-to-capacity ratio. **Bold** indicates exceedance of General Plan LOS policy.
[1] Classification codes are based on "Table 2: Level of Service Criteria – Roadway Segments".
Source: Fehr & Peers, 2022

Bicycle and Pedestrian Facilities

Currently, there are no bicycle or pedestrian facilities at the proposed project frontage. The only portion of the study area with pedestrian or bike facilities is the SR 99/W. Riego Road interchange, which contains about one-half mile of sidewalks and Class II bike lanes on both sides of W. Riego Road. In addition, marked crosswalks with pedestrian push buttons are provided at both SR 99/W. Riego Road ramp terminal intersections for pedestrians crossing the SR 99 off-ramps. However, the count data shows that pedestrian and bicycle volumes at these intersections are minimal during the AM and PM peak hours.

Travel Characteristics

Data Collection

The Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11th Edition* (2021) does not contain data for a land use category with characteristics similar to truck yard sites. Therefore, driveway counts at two sites similar to the proposed project were conducted to estimate the project's trip generation. The two sites, which are truck yards with truck/trailer repair shops, included the following: Sangha Truck & Trailer Repair in Yuba City and M&M Truck & Trailer Repair in West Sacramento. Driveway counts were collected over the course of 24 hours on Wednesday, January 12, 2022 (see Appendix A for count data).

The data shows that the peak hour of the truck yard would likely occur outside conventional morning and evening peak hours, between 9 AM and 4 PM. However, to determine potential off-site traffic impacts, this study focuses on an analysis of typical AM (7-9 AM) and PM (4-6 PM) peak hours, when traffic is highest on adjacent roadways.

Trip Generation

Table 6 shows the trip generation estimate of the proposed project. The trip generation is based on passenger vehicle and truck trip rates derived from the driveway count data. As shown in Table 6, the project is estimated to generate about 23 AM peak hour, 26 PM peak hour, and 424 daily vehicle trips.

Table 6: Trip Generation Estimate – Platinum Express Truck Yard

Land Use	Quantity	Vehicle Type	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Truck Yard with Truck/Trailer Repair Shop	7.08 Acres (Fenced)	Passenger Vehicles	13	3	16	9	14	23	291
		Trucks	3	4	7	2	1	3	133
		All	16	7	23	11	15	26	424

Notes: [1] Based on trip rates derived from driveway count data at two similar truck yard sites in Sutter and Yolo Counties. Both sites are truck yards with truck and trailer repair shops.
Source: Fehr & Peers, 2022

Trip Distribution

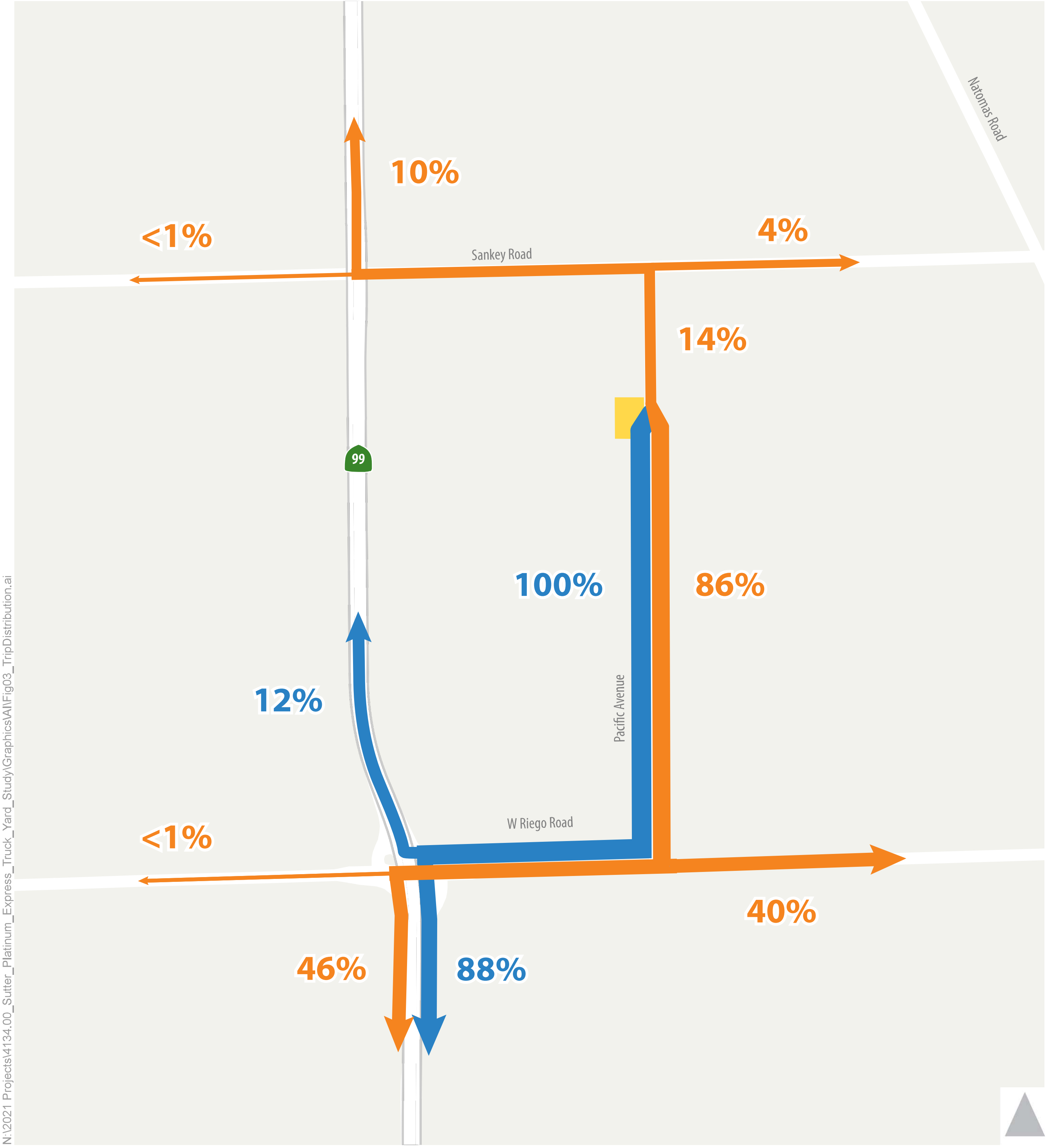
SACOG, as the Sacramento region's designated Metropolitan Planning Organization (MPO), develops and maintains the Sacramento Activity-Based Travel Simulation Model, or SACSIM19. This travel demand forecasting model is used for regional-scale policy analysis of land use and transportation plans, as well as for analysis of travel behavior changes.

A modified version of SACSIM19 was used to derive the trip distribution for the proposed project. **Figure 3** shows trip distribution percentages within the study area, disaggregated by vehicle type. As shown, all project truck trips would use Pacific Avenue and W. Riego Road to pass though the SR 99/W. Riego Road interchange, consistent with the marked STAA truck route. An estimated 88 percent of truck trips would travel south on SR 99 and the remaining 12 percent would travel north. Passenger car trips accessing southbound SR 99 would also use the W. Riego Road interchange, whereas passenger cars heading north would use the SR 99/Sankey Road intersection. The remaining passenger car trips would travel east on W. Riego Road (40 percent) or east on Sankey Road (4 percent). A nominal amount of project traffic (less than 1 percent) would travel west of SR 99 on Sankey Road or W. Riego Road.

Existing Plus Project Conditions

Intersection Operations

Existing Plus Project traffic volumes account for the addition of vehicle trips to the existing volumes, in accordance with the travel characteristics (i.e., trip generation and distribution) previously presented. **Figure 4** displays the resulting AM and PM peak hour study intersection traffic volumes under Existing Plus Project conditions. **Table 7** shows the Existing Plus Project peak hour intersection operations at the study intersections (refer to Appendix A for technical calculations).



XX% Passenger Car Trip Distribution

Project Site

XX% Truck Trip Distribution

Figure 3
Trip Distribution

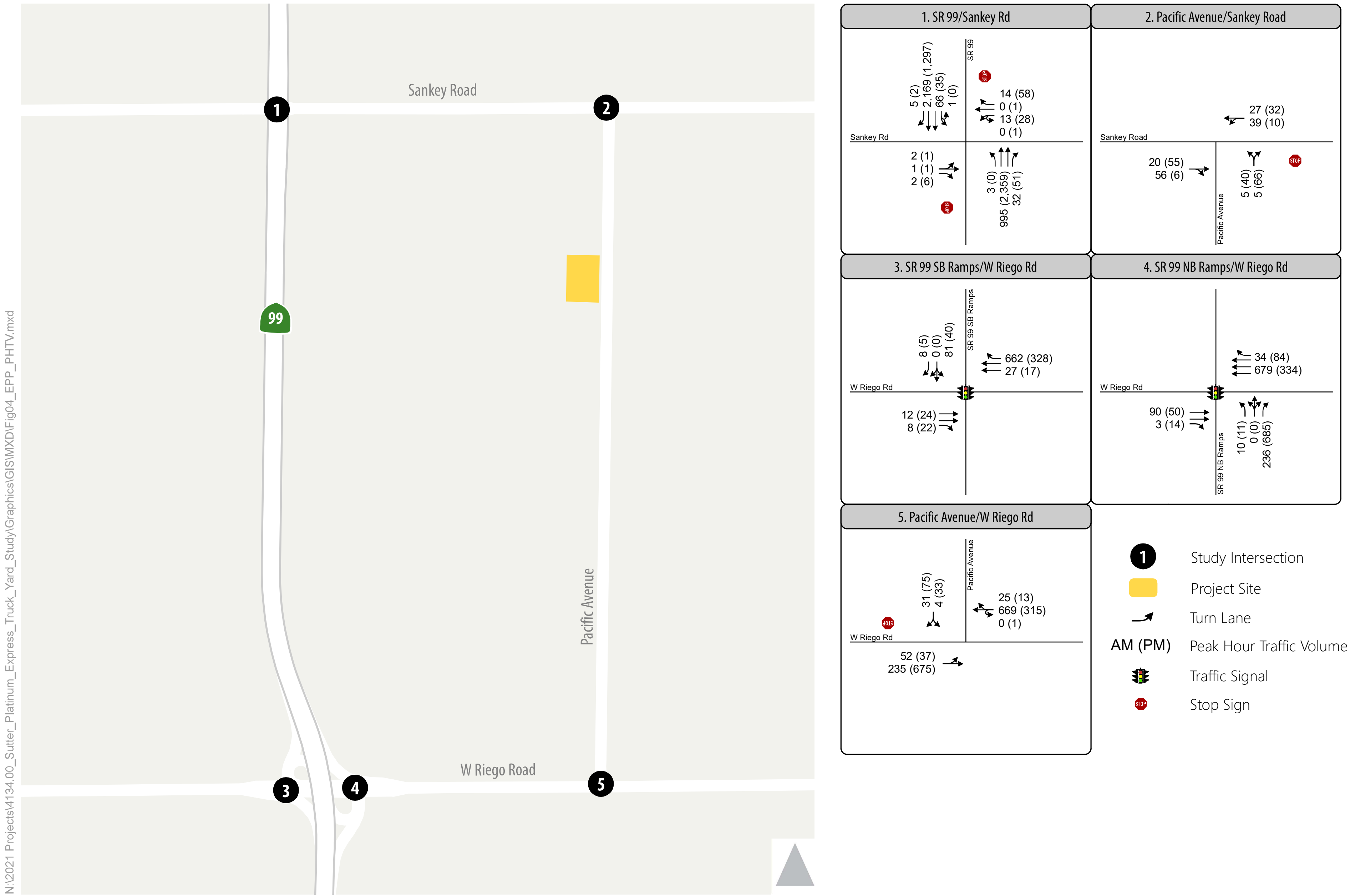


Figure 4

Peak Hour Traffic Volumes and Lane Configurations - Existing Plus Project Conditions

Table 7: Intersection Operations – Existing Plus Project Conditions

Intersection	Traffic Control	Peak Hour	Existing Conditions		Existing Plus Project Conditions	
			Delay[1]	LOS[1]	Delay[1]	LOS[1]
1. Sankey Road/State Route 99	SSSC	AM	**2 (41)**	**A (E)**	**2 (41)**	**A (E)**
		PM	**3 (123)**	**A (F)**	**3 (129)**	**A (F)**
2. Sankey Road/Pacific Avenue	SSSC	AM	3 (9)	A (A)	3 (9)	A (A)
		PM	5 (10)	A (A)	5 (10)	A (A)
3. W. Riego Road/State Route 99 SB Ramps	Signal	AM	8	A	8	A
		PM	7	A	7	A
4. W. Riego Road/State Route 99 NB Ramps	Signal	AM	5	A	5	A
		PM	7	A	7	A
5. W. Riego Road/Pacific Avenue	SSSC	AM	1 (15)	A (C)	1 (16)	A (C)
		PM	2 (16)	A (C)	2 (17)	A (C)

Notes: LOS = Level of Service. SSSC = Side-Street Stop Controlled. **Bold** indicates exceedance of Sutter County LOS policy.
[1] For signalized intersections, average delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay.
Source: Fehr & Peers, 2022

As shown in Table 7, the Sankey Road/SR 99 intersection operates below Sutter County's adopted LOS threshold under existing conditions and delay would be exacerbated by the proposed project during the PM peak hour. The deficient movement (LOS F) occurs from the side street.

Table 8 shows the Existing Plus Project conditions peak hour average maximum queue length for key movements at study intersections. These queue estimates are based on ten microsimulation runs using Synchro's SimTraffic microsimulation module. Like Table 4, Table 8 disaggregates key movements at Sankey Road/SR 99 to capture queue lengths within the refuge area.

As shown in Table 8, the proposed project would result in relatively minor changes in queuing. Under Existing Plus Project conditions, all average maximum queue values would be less than the corresponding storage length, except for the eastbound left/through from the vehicle refuge area at the Sankey Road/SR 99 intersection. The microsimulation (average of ten runs) shows that vehicles fill the eastbound vehicle refuge area and cause upstream queuing on the SR 99 southbound left and Sankey Road eastbound through movements about 1% of the AM peak hour and 12% of the PM peak hour (an increase from 7% under existing conditions). The project is forecasted to add one vehicle to the southbound left-turn movement during the AM and PM peak hours, which would contribute to the southbound left-turn vehicle queue. However, the vehicle queue would not exceed available storage or impact SR 99 operations.

Table 8: Average Maximum Queue Lengths – Existing Plus Project Conditions

Intersection	Movement	Storage Length (feet)	Average Maximum Queue[1] (feet)		Change Compared to Existing Conditions (feet)	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1A. Sankey Road/State Route 99 (Southbound)	EB T	>1,000	25	25	-	-
	WB LT	75	25	25	-	-
	SB L	540	25	25	-	-
1B. Sankey Road/State Route 99 (Northbound)	EB LT	75	**75**[2]	**75**[2]	**-**	**-**
	WB T	>1,000	50	75	-	-
	NB L	535	25	25	-	-
2. Sankey Road/Pacific Avenue	EB TR	>1,000	25	25	-	-
	WB LT	>1,000	25	25	-	-
	NB LR	>1,000	50	50	-	-25
3. W. Riego Road/State Route 99 Southbound Ramps	EB T	>1,000	25	25	-	-
	WB T	995	50	50	-	-
	SB LR	330	100	75	+25	+25
	SB R	>1,000	50	25	-	-25
4. W. Riego Road/State Route 99 Northbound Ramps	EB T	995	100	75	+25	-
	WB T	>1,000	225	150	+50	-25
	NB L	565	25	25	-	-
	NB LR	>1,000	125	200	+25	-
	NB R	565	50	175	-	-
5. W. Riego Road/Pacific Avenue	EB LT	>1,000	100	100	+25	+50
	WB TR	>1,000	25	25	-	-
	SB LR	>1,000	75	100	+25	+25

Notes: **Bold** indicates exceedance of storage length.
[1] Average maximum queue is based on an average of ten microsimulation runs using Synchro's SimTraffic microsimulation module.
[2] The microsimulation shows that vehicles fill the eastbound vehicle refuge area and cause upstream queuing on the SR 99 southbound left and Sankey Road eastbound through movements about 1% of the AM peak hour and 12% of the PM peak hour (average of ten microsimulation runs).
Source: Fehr & Peers, 2022

Roadway Segment Operations

Existing Plus Project conditions study roadway segment volumes were estimated by assigning the daily trip generation (Table 6) to the existing conditions roadway network using the developed trip distributions (Figure 3). The Existing Plus Project daily volumes were compared to daily volume thresholds specific to the facility type. **Table 9** shows Existing Plus Project daily traffic, LOS, and volume-to-capacity ratios for the 4 study roadway segments. As shown, the proposed project would result in minor increases to vehicle-to-capacity ratios, and all study roadway segments would operate at LOS D or better daily.

Table 9: Roadway Segment Analysis – Existing Plus Project Conditions

Roadway Segment	Lanes	Classification[1]	Existing Conditions		Existing Plus Project Conditions	
			ADT	LOS/VC	ADT	LOS/VC
1. Sankey Road – SR 99 to Pacific Avenue	2	2R	1,128	C / 0.05	1,169	C / 0.06
2. Pacific Avenue – South of Sankey Road	2	2R	1,341	C / 0.06	1,382	C / 0.07
3. Pacific Avenue – North of W. Riego Road	2	2R	1,185	C / 0.06	1,568	C / 0.08
4. W. Riego Road – SR 99 to Pacific Avenue	2	2R	11,272	D / 0.54	11,539	D / 0.55

Notes: ADT = average daily traffic. LOS = Level of Service. VC = volume-to-capacity ratio. **Bold** indicates exceedance of General Plan LOS policy.
[1] Classification codes are based on "Table 2: Level of Service Criteria – Roadway Segments".
Source: Fehr & Peers, 2022

Assessment of Potential Off-Site Impacts

Based on the intersection operations analysis, the following intersection currently operates below Sutter County's adopted LOS threshold under existing conditions. The delay at this intersection would be exacerbated by the proposed Platinum Express Truck Yard project.

- Sankey Road/SR 99 during the PM peak hour

Under Existing Plus Project conditions, the Sankey Road/SR 99 intersection does not meet the peak hour signal warrant due to insufficient volume on the minor street.

In the revised *Lakeside at Sutter Pointe: Impact Analysis* memorandum (Fehr & Peers, May 20, 2020), a LOS impact is also identified at Sankey Road/SR 99. The improvement measure for that impact requires installation of directional signing on Sankey Road (in advance of Pacific Avenue) and on Pacific Avenue (in advance of W. Riego Road) directing drivers to use Pacific Avenue to W. Riego Road to access southbound SR 99 and areas west of SR 99. Because the project's negative impact to the Sankey Road/SR 99 intersection is caused by adding traffic to the southbound left-turn movement, this improvement measure would not mitigate the proposed project's LOS impact.

Based on discussion with County staff, the following improvement measure is recommended:

- Condition the project such that all inbound and outbound traffic to and from SR 99 (or areas west of SR 99) are prohibited from using Sankey Road and, instead, use W. Riego Road and Pacific Avenue. This improvement measure would require the applicant to fully fund installation of required directional signing (on-site or off-site) and conversion of project driveways to be left-in and right-out only.

Table 10 shows that the proposed improvement measure would mitigate the Existing Plus Project conditions LOS impact and would nominally affect delay at the other study intersections.

Table 10: Intersection Operations – Existing Plus Project Conditions with Improvements

Intersection	Traffic Control	Peak Hour	Existing Plus Project Conditions Delay/LOS[1]			
			No Improvements		With Improvements	
1. Sankey Road/State Route 99	SSSC	AM	**2 (41)**	**A (E)**	**2 (41)**	**A (E)**
		PM	**3 (129)**	**A (F)**	**3 (123)**	**A (F)**
2. Sankey Road/Pacific Avenue	SSSC	AM	3 (9)	A (A)	3 (9)	A (A)
		PM	5 (10)	A (A)	5 (10)	A (A)
3. W. Riego Road/State Route 99 SB Ramps	Signal	AM	8	A	8	A
		PM	7	A	7	A
4. W. Riego Road/State Route 99 NB Ramps	Signal	AM	5	A	5	A
		PM	7	A	7	A
5. W. Riego Road/Pacific Avenue	SSSC	AM	1 (16)	A (C)	1 (16)	A (C)
		PM	2 (17)	A (C)	2 (17)	A (C)

Notes: LOS = Level of Service. SSSC = Side-Street Stop Controlled. **Bold** indicates exceedance of Sutter County LOS policy.
[1] For signalized intersections, average delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay.
Source: Fehr & Peers, 2022

Analysis of Project Access

Project access was analyzed to determine turn-lane, vehicle storage, and sight distance requirements. Vehicle and truck access at project driveways were evaluated, as were bicycle and pedestrian access to the project site. In addition, the project was evaluated for agreement with relevant Sutter County design and improvement standards.

Recommended Project Access

The need for separate ingress left-turn lanes and right-turn deceleration lanes are evaluated below. To properly evaluate worst-case scenarios, site-generated traffic is assumed to all use the same driveway, as opposed to splitting traffic between the two proposed driveways.

- Need for Left-Turn Lane on Pacific Avenue – AASHTO's *A Policy on Geometric Design of Highways and Streets* (7th Edition, 2018) includes guidance concerning the accommodation of left-turns at unsignalized intersections. The provision of left-turn lanes has been found to reduce crash rates from 20 to 65 percent. Left-turn facilities should be established on roadways where traffic volumes are high enough or crash histories are sufficient to warrant them. Table 9-25 and Figure 9-36 in AASHTO's *A Policy on Geometric Design of Highways and Streets* provide suggested left-turn treatment warrants based on results from benefit-cost evaluations for intersections on two-lane highways in rural areas.

  Inputs to the left-turn treatment warrant are the left-turn volume and the per lane volume on the major street. For the project, the left-turn volume entering the project during the AM peak hour is about 11 passenger cars and 3 trucks. The total volume on Pacific Avenue south of the project site is about 120 (88 northbound and 32 southbound), or 60 vehicles per hour per lane. Based on these volumes, a bypass lane is warranted.

  Currently, left-turn pockets are not provided on Pacific Avenue. Therefore, we reviewed the latest 6 years of collision records (2015-2020, inclusive) from the Statewide Integrated Traffic Records System (SWITRS) to identify if the lack of left-turn pockets at driveways on Pacific Avenue may be contributing to collisions. Based on the data, there were no recorded collisions on Pacific Avenue that resulted in injuries or fatalities that were attributed to left-turn movements. Note that the SWITRS database only includes injury collisions and does not include property damage only collisions. During the 6-year period, there was one reported collision on Pacific Avenue, which involved a vehicle hitting a fixed object.

  AASHTO's *A Policy on Geometric Design of Highways and Streets* states that the "volume-based guidelines or warrants presented below indicate situations where a left-turn lane may be desirable, not necessarily situations where a left-turn lane is definitely needed."

We defer to County staff to determine if a left-turn treatment is required at either project driveway.

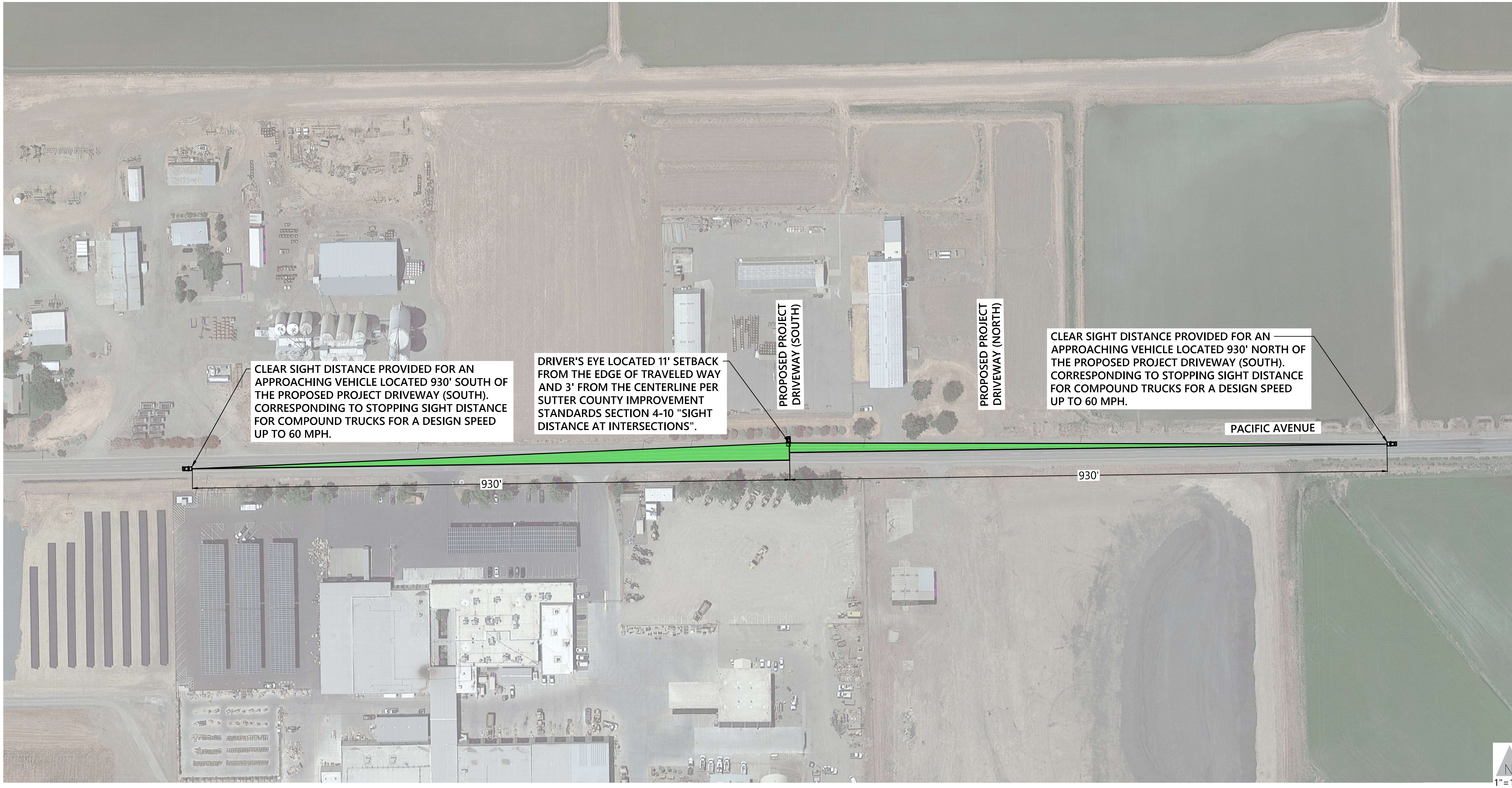
- Need for Right-Turn Tapers/Deceleration Lanes – The southbound right-turn from Pacific Avenue into the project site is expected to serve about 2 vehicles during the AM peak hour. The NCHRP's report for Project 3-72, "Synthesis on Right-Turn Deceleration Lanes on Urban and Suburban Arterials", refers to several studies addressing warrants for the installation of right-turn lanes, concluding that the "warrants are primarily based on a minimum right-turn volume that can be accommodated without significantly impacting through traffic on the approach." The worst-case scenario, when considering both the site generated trips and the roadway volumes, occurs during the AM peak hour. On Pacific Avenue north of the project, the Existing Plus Project southbound volume is 34 vehicles during the AM peak hour. Therefore, a right-turn deceleration lane is not needed on Pacific Avenue at the project driveway per Table 4 ("Summary of state design practice in providing right-turn lanes on rural highways") of the NCHRP report.

- Vehicle Storage Requirements at Platinum Driveway – The eastbound left- and right-turns from the Platinum Express truck yard driveway onto Pacific Avenue are expected to serve an equivalent of 17 passenger cars (using a storage requirement passenger-car equivalent for trucks of 3.0) during the PM peak hour. Based on the Existing Plus Project traffic volumes on Pacific Avenue, the maximum vehicle queue for the driveway is estimated to be 1 vehicle. The proposed throat depth of about 67 feet at the project driveways is adequate to accommodate the maximum queue. Overall, a shared outbound left- and right-turn lane at both driveways is adequate to accommodate the low egress volumes.

Sight Distance Evaluation

Sight distance analysis was performed at the proposed project driveways on Pacific Avenue. The Pacific Avenue northbound and southbound directions have posted speed limits of 55 MPH between Sankey Road and W. Riego Road. With side-street stop-controlled intersections one half mile north and one-and-a-half miles south of the project driveway, approaching traffic has adequate distance to accelerate to the full posted speed limit (55 MPH) prior to reaching the project driveways. Furthermore, consideration beyond the 500-foot requirement outlined in the Sutter County Street Improvement Standards (2010), Section 4-10, is required due to large heavy vehicle percentages on Pacific Avenue during the AM and PM peak hours.

Figure 5 and **Figure 6** show sight triangles from the driver's eye at each of the project driveways to approaching northbound and southbound vehicles on Pacific Avenue. The positioning distance of 930 feet in advance of the driveway was determined per provisions found in the *Highway Design Manual*, Section 405.1(2), and corresponds to stopping speeds of combination trucks at a



LEGEND

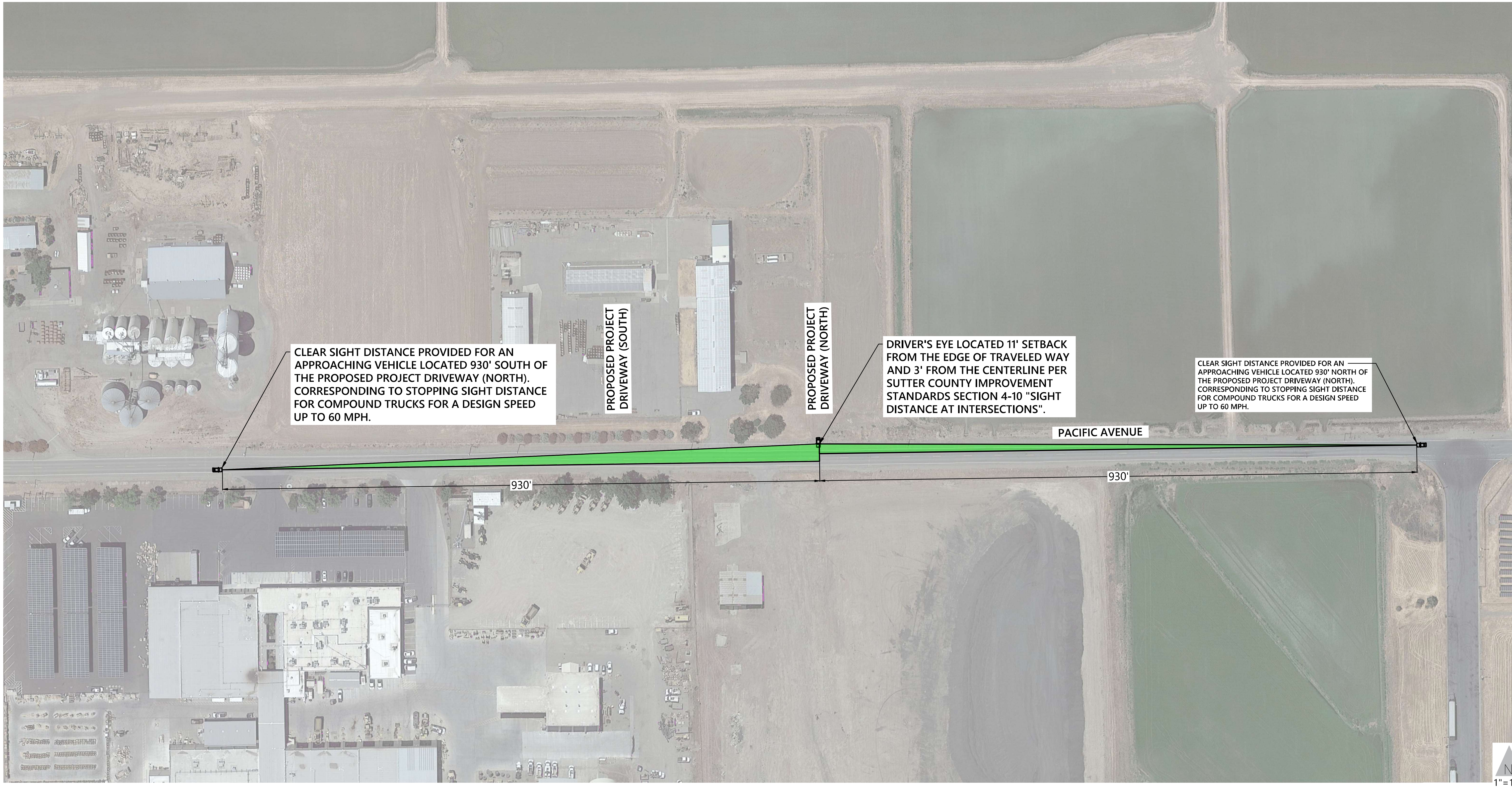
STOPPING SIGHT DISTANCE TRIANGLE - DESIGN OF VERTICAL ELEMENTS IN THIS AREA TO BE CONSISTENT WITH SUTTER COUNTY STANDARD DRAWING H-14.

150 0 150 300
1" = 150' GRAPHIC SCALE

Figure 5

Stopping Sight Distance

Pacific Avenue and Proposed Project Driveway (South)



LEGEND

STOPPING SIGHT DISTANCE TRIANGLE - DESIGN OF VERTICAL ELEMENTS IN THIS AREA TO BE CONSISTENT WITH SUTTER COUNTY STANDARD DRAWING H-14.

150 0 150 300
1" = 150' GRAPHIC SCALE

Figure 6

Stopping Sight Distance
Pacific Avenue and Proposed Project Driveway (North)

design speed of 55 MPH (per provisions in the Sutter County Street Improvement Standards, Section 4-10).

As shown, the sight triangles are clear of all existing and proposed vertical elements with no visibility obstructions. Therefore, the proposed project driveways maintain adequate sight distance to approaching vehicles under Existing Plus Project conditions.

Site Access and Circulation

Site access and site circulation evaluation was provided by the applicant in the project site plan dated February 10, 2022. That document shows that the site plan can accommodate the shown vehicles without encroachment.

Project Compliance with Relevant Design and Improvement Standards

Pacific Avenue between W. Riego Road and Sankey Road is classified as a rural local road in both the "Existing Functional Classification Circulation Diagram" and "Future Functional Classification Circulation Diagram" of the Sutter County General Plan. Pacific Avenue has 11-foot travel lanes, 1-foot paved shoulders, and 2-foot gravel shoulders in both directions, resulting in a total roadway width of 28 feet, traveled way width of 22 feet, and graded shoulder width of 3 feet on both sides of the road. The posted speed limit for northbound and southbound Pacific Avenue is 55 MPH, and the daily traffic is about 1,185 vehicles based on mid-week counts collected in August 2019 for the *Lakeside at Sutter Pointe* project. The existing cross section on Pacific Avenue is consistent with Sutter County Standard Drawing H-3 for a rural local road.

Pacific Avenue between W. Riego Road and Sankey Road is classified as a four-lane, divided urban minor arterial in Exhibit 6.2 ("Master Roadway Plan") of the *Sutter Pointe Specific Plan*. The proposed project driveways on Pacific Avenue are set back to provide future right-of-way for the 107-foot urban minor arterial (see Exhibit 6.11, "Four Lane Divided Arterials Section F-F", of the *Sutter Pointe Specific Plan*), providing compliance with Implementation Program M 2-B of the Sutter County General Plan. There are existing overhead utilities on the west side of the street within the ultimate 107-foot right-of-way.

Implementation Program M 2-E in the Sutter County General Plan is in place to "condition new development to finance and construct appropriate circulation improvements necessary to mitigate a project's transportation impacts including pedestrian and bicycle mobility, safety, and level of service-related impacts." In addition, M 2-E is in place to "collect the fair share cost of required circulation improvements through established fees, and/or construction estimates of needed improvements, as appropriate, where construction is not practical at the time of development". The County will work with the applicant to condition the project consistent with Implementation Program M 2-E.

The Platinum Express Truck Yard would generate STAA truck trips. Pacific Avenue is a designated truck route serving SR 99, which is a Caltrans designated truck route. Section 4.3 of AASHTO's *A Policy on Geometric Design of Highways and Streets* (7th Edition, 2018) states that a "12-ft [3.6-m] lane provides desirable clearances between large commercial vehicles traveling in opposite directions on two-lane, two-way highways in rural areas." Further guidance on appropriate lane widths for local rural roads is provided in Section 5.2.2.1 ("Width of Roadway"). Table 5-5 ("Minimum Width of Traveled Way and Shoulders for Two-Lane Local Roads in Rural Areas") lists the minimum traveled way and shoulder widths for local rural roads based on design speed and average daily traffic (ADT). For a design speed of 55 MPH and ADT between 400 and 2,000 vehicles per day, the minimum traveled way width is 22 feet and the minimum graded shoulder width is 3 feet on each side. Based on this criteria, Pacific Avenue does not need to be widened to accept project truck traffic between the project site and SR 99. Due to substantial truck volumes present on Pacific Avenue, AASHTO recommends widening the traveled way to 24 feet if the ADT on Pacific Avenue increases above 2,000 vehicles per day.

Pedestrian and Bicycle Access

Pedestrian and bicycle access were evaluated near the proposed project based on existing and planned facilities. Currently, there are no bicycle or pedestrian facilities on Pacific Avenue between W. Riego Road and Sankey Road. Per the *Sutter Pointe Specific* Plan, this portion of Pacific Avenue is planned as a future 4-lane divided minor arterial, with 5-foot Class II bike lanes and 6-foot sidewalks buffered from the bike lanes by a planter strip and/or on-street parking. The Class II bike lanes will connect to planned Class I bike facilities along W. Riego Road and the current alignment of Sankey Road. The *Sutter Pointe Specific Plan* also contains several policies related to providing secure bicycle parking, showers, clothing lockers, on-site pedestrian and bicycle circulation, and connection to adjacent sidewalks and bike lanes.

Implementation Program M 5-C in the Sutter County General Plan is in place to "condition new development to construct bicycle and pedestrian lanes/trails and associated facilities in and supporting the development project in accordance to the County's Bikeway and Pedestrian Master Plan and County improvement standards; and to the extent possible, connect these facilities to existing and planned bicycle lanes/trails".

The County will work with the applicant to condition the project consistent with the *Sutter Pointe Specific Plan* and Implementation Program M 5-C.

Vehicle Miles Traveled Transportation Assessment

Significance Criteria

To aid in SB 743 implementation, OPR released a Technical Advisory on Evaluation Transportation Impacts in CEQA in December 2018. The Technical Advisory provides advice and recommendations to CEQA lead agencies on how to implement SB 743 changes. This includes technical recommendations regarding the assessment of VMT, thresholds of significance, VMT mitigation measures, and screening thresholds for certain land use projects. Lead agencies may consider and use recommendations in the Technical Advisory at their discretion. Sutter County has not yet adopted a VMT significance threshold and methodology for CEQA VMT transportation assessments. Therefore, this VMT transportation assessment relies on the State of California's guidance in the Technical Advisory.

Based on input from County staff, the proposed project's application is a staff-level ministerial design review that would not require approval by the County Board of Supervisors. As a result, CEQA does not apply, as CEQA is only triggered by discretionary actions. Therefore, the VMT assessment presented in this memorandum is for informational purposes, and the County has discretion on any conditions of approval related to VMT impacts.

In the absence of an applicable Sutter County VMT significance threshold, for the purposes of this study and in accordance with the Technical Advisory guidelines, a VMT-related impact would be considered significant if implementation of the proposed Platinum Express Truck Yard project would trigger the following condition:

- The proposed project exceeds a level of 15 percent below existing regional VMT per employee (i.e., exceeds 18.1 vehicle-miles per employee)

VMT Assessment

To support SB 743 implementation, SACOG has developed screening maps using outputs from the 2016 base year model run of the SACSIM travel demand model for the 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). SACSIM 2016 is activity/tour based and is designed to estimate individuals' daily travel, accounting for land use, transportation, and demographics that influence peoples' travel behaviors. SACOG's Workplace-based VMT per job map uses "HEX" geography, wherein average workplace VMT per job is calculated for each HEX by tallying all VMT generated by work-place tours and subtours at a workplace in the HEX and dividing by the total number of jobs available for residents inside the SACOG region in that HEX. It should be noted that this screening map does not account for VMT traveled outside the SACOG region.

The proposed project is strictly commercial, which means SACOG's HEX map is applicable. According to the map, the proposed project site is captured in a HEX containing other industrial businesses where the average workplace VMT per job is 38.1. SACOG's HEX methodology estimates that the regional average workplace VMT per job is 21.3. This means that the proposed project is in an area where average VMT per worker is greater than 150 percent of the regional average and would exceed the VMT impact threshold of 18.1.

For comparison, M&M Truck & Trailer Repair in West Sacramento and Sangha Truck & Trailer Repair in Sutter County—the two driveway data collection sites used in this project—reside within HEXs with workplace VMT per job of 25.2 and 22.4, respectively. Both these HEXs would exceed the VMT impact threshold of 18.1 as well.

Based on the project's location in a low-density rural area, its clientele (primarily truck operators), and the fact that similar sites are located within HEXs exceeding the VMT impact threshold, we conclude that the proposed Platinum Express Truck Yard project has a significant impact to VMT.

Recommended Improvements

Improvements that would reduce VMT must result in one of two outcomes—a decrease in average trip length or a decrease in trip generation. The proposed project's remote location and specialized land use type would limit the range and effectiveness of potential VMT mitigation options, particularly those that are commonly applicable in urban or suburban settings (e.g., co-locating complementary land uses, providing subsidized transit passes, improving pedestrian/bicycle networks, managing parking supply, etc.). An improvement is nonetheless presented below. As mentioned previously, CEQA does not apply and the County ultimately has discretion on any conditions of approval related to the proposed project's VMT impact.

Recommended Improvement 1: Transportation Demand Management (TDM) Program. The project applicant would develop and implement a TDM program to reduce the number of daily vehicle trips made to the project site and would submit the TDM Program to Sutter County for review and approval. The TDM Program would identify trip reduction strategies as well as mechanisms for funding and overseeing the delivery of trip reduction programs and strategies. The TDM Program would be designed to achieve the following trip reduction:

- Reduce workplace VMT per job to a level 15 percent below the regional average

Trip reduction strategies may include, but are not limited to, the following.

- Develop an employer-led program that considers:
  - Carpooling encouragement
  - Ride-matching assistance
  - Part-time or contract transportation coordinator
  - Vanpool assistance
- Make ad hoc payment towards active transportation projects, which reduce VMT, elsewhere in Sutter County

Given the project's land use type and its location in rural Sutter County, the effectiveness of TDM measures to reduce project-generated VMT to a level 15 percent below regional average VMT per employee is not certain. For this reason, we conclude that implementation of Recommended Improvement 1 would not reduce workplace VMT per job to a less-than-significant level.

APPENDIX A:

TECHNICAL CALCULATIONS

Prepared by National Data & Surveying Services

In & Out

Location: Galveston St & 618 Galveston St Dwy
City: West Sacramento

Date: 1/12/2022
Day: Wednesday

TIME	PV						Buses						2 Axle						3 Axle+					
	IN			OUT			IN			OUT			IN			OUT			IN			OUT		
	NL	SR	WT	EL	ET	ER	NL	SR	WT	EL	ET	ER	NL	SR	WT	EL	ET	ER	NL	SR	WT	EL	ET	ER
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
6:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	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	0	0
8:15 AM	0	2	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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9:00 AM	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
9:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
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10:30 AM	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
10:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
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11:15 AM	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:30 AM	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:45 AM	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1
12:00 PM	3	0	0	1	0	2	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0	0
12:15 PM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
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12:45 PM	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0
1:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
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4:00 PM	0	2	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	1	0	0	1	0	1	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	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:45 PM	1	0	0	0	0	2	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	1	0	0
5:15 PM	0	1	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	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:15 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
7:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
8:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
8:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	*46*	*29*	*0*	*20*	*1*	*50*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*1*	*0*	*2*	*0*	*2*	*25*	*8*	*0*	*8*	*0*	*23*

Prepared by National Data & Surveying Services

In & Out

Location: Sangha Truck and Trailer Repair West Dwy & Oswald Rd
City: Yuba City

Date: 1/12/2022
Day: Wednesday

TIME	PV				Buses				2 Axle				3 Axle+			
	IN		OUT		IN		OUT		IN		OUT		IN		OUT	
	EL	WR	SL	SR	EL	WR	SL	SR	EL	WR	SL	SR	EL	WR	SL	SR
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	1	0	0	1	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	0
7:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	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	0	0	0	0
8:30 AM	1	0	0	1	0	0	0	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
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
10:00 AM	1	1	0	1	0	0	0	0	0	0	0	0	1	0	0	2
10:15 AM	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1
10:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
12:45 PM	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0
2:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
3:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4:30 PM	0	0	0	1	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
5:00 PM	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
5:30 PM	0	0	0	1	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	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:30 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:15 PM	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Totals	***25***	***4***	***2***	***34***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***16***	***1***	***1***	***12***

Prepared by National Data & Surveying Services

In & Out

Location: Sangha Truck and Trailer Repair East Dwy & Oswald Rd
City: Yuba City

Date: 1/12/2022
Day: Wednesday

TIME	PV				Buses				2 Axle				3 Axle+			
	IN		OUT		IN		OUT		IN		OUT		IN		OUT	
	EL	WR	SL	SR	EL	WR	SL	SR	EL	WR	SL	SR	EL	WR	SL	SR
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	3	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	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	2	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1
10:30 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	2	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
11:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1
11:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1
1:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1:45 PM	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0
3:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0

4:30 PM	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	0	1	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	1	0	0	0
5:15 PM	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	2	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	0	0	0	0
6:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0
6:45 PM	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:00 PM	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	***41***	***18***	***24***	***34***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***18***	***0***	***2***	***12***

Existing Conditions - Sankey Rd/SR 99

AM Peak Hour

Int 2								
Movement	EBT	EBR	WBU	WBL	WBT	SBL	SBT	SBR
Volume	3	2	0	13	3	66	2169	5
Delay	31.7	0	0	2.9	0	2.6	2.2	1.6

Int 222							
Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Volume	3	66	13	14	3	995	32
Delay	0	8.9	13.6	1.1	0.1	1.1	1.9

COMBINED															
Movement	SBU	SBL	SBT	SBR	EBL	EBT	EBR	NBU	NBL	NBT	NBR	WBL	WBT	WBR	WBU
Volume	1	65	2169	5	2	1	2	0	3	995	32	13	0	14	0
Delay	2.6	11.5	2.2	1.6	31.7	40.6	0	0	0.1	1.1	1.9	16.5	0	1.1	0

Delay/veh	**2.1**
Delay/veh (worse mvmnt)	**40.6**

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	20	55	38	27	5	5
Future Vol, veh/h	20	55	38	27	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	24	66	46	33	6	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	90	0	182	57
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	125	-
Critical Hdwy	-	-	4.23	-	6.53	6.33
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	-	-	2.317	-	3.617	3.417
Pot Cap-1 Maneuver	-	-	1439	-	783	979
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	874	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1439	-	757	979
Mov Cap-2 Maneuver	-	-	-	-	757	-
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	845	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.4	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	854	-	-	1439	-
HCM Lane V/C Ratio	0.014	-	-	0.032	-
HCM Control Delay (s)	9.3	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	12	8	0	27	656	0	0	0	81	0	8
Future Volume (veh/h)	0	12	8	0	27	656	0	0	0	81	0	8
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
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	1781	1781	0	1781	1781				1781	1781	1781
Adj Flow Rate, veh/h	0	13	0	0	29	0				86	0	0
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	8	8	0	8	8				8	8	8
Cap, veh/h	0	1221		0	1221					220	0	196
Arrive On Green	0.00	0.36	0.00	0.00	0.36	0.00				0.13	0.00	0.00
Sat Flow, veh/h	0	3474	1510	0	3474	1510				1697	0	1510
Grp Volume(v), veh/h	0	13	0	0	29	0				86	0	0
Grp Sat Flow(s),veh/h/ln	0	1692	1510	0	1692	1510				1697	0	1510
Q Serve(g_s), s	0.0	0.1	0.0	0.0	0.1	0.0				1.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.1	0.0	0.0	0.1	0.0				1.0	0.0	0.0
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1221		0	1221					220	0	196
V/C Ratio(X)	0.00	0.01		0.00	0.02					0.39	0.00	0.00
Avail Cap(c_a), veh/h	0	3510		0	2747					2065	0	1838
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	0.00
Uniform Delay (d), s/veh	0.0	4.5	0.0	0.0	4.6	0.0				8.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				1.1	0.0	0.0
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	0.0	0.0	0.0	0.0	0.0				0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.6	0.0	0.0	4.6	0.0				10.0	0.0	0.0
LnGrp LOS	A	A		A	A					A	A	A
Approach Vol, veh/h		13	A		29	A					86	
Approach Delay, s/veh		4.6			4.6						10.0	
Approach LOS		A			A						A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		14.2		8.0		14.2						
Change Period (Y+Rc), s		* 6.2		5.1		* 6.2						
Max Green Setting (Gmax), s		* 23		27.0		* 18						
Max Q Clear Time (g_c+I1), s		2.1		3.0		2.1						
Green Ext Time (p_c), s		0.0		0.4		0.1						

Intersection Summary		
HCM 6th Ctrl Delay		8.2
HCM 6th LOS		A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	90	3	0	673	34	10	0	227	0	0	0
Future Volume (veh/h)	0	90	3	0	673	34	10	0	227	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
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	1781	1781	0	1781	1781	1781	1781	1781			
Adj Flow Rate, veh/h	0	96	0	0	716	0	7	0	42			
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	8	8	0	8	8	8	8	8			
Cap, veh/h	0	1695		0	2436		135	0	241			
Arrive On Green	0.00	0.50	0.00	0.00	0.50	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	0	3474	1510	0	5024	1510	1697	0	3019			
Grp Volume(v), veh/h	0	96	0	0	716	0	7	0	42			
Grp Sat Flow(s),veh/h/ln	0	1692	1510	0	1621	1510	1697	0	1510			
Q Serve(g_s), s	0.0	0.4	0.0	0.0	2.3	0.0	0.1	0.0	0.3			
Cycle Q Clear(g_c), s	0.0	0.4	0.0	0.0	2.3	0.0	0.1	0.0	0.3			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1695		0	2436		135	0	241			
V/C Ratio(X)	0.00	0.06		0.00	0.29		0.05	0.00	0.17			
Avail Cap(c_a), veh/h	0	4648		0	6679		1700	0	3026			
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	3.5	0.0	0.0	3.9	0.0	11.5	0.0	11.6			
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.1	0.0	0.2	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	3.5	0.0	0.0	4.1	0.0	11.7	0.0	12.1			
LnGrp LOS	A	A		A	A		B	A	B			
Approach Vol, veh/h		96	A		716	A		49				
Approach Delay, s/veh		3.5			4.1			12.0				
Approach LOS		A			A			B				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		19.7				19.7		7.2				
Change Period (Y+Rc), s		* 6.2				* 6.2		5.1				
Max Green Setting (Gmax), s		* 37				* 37		27.0				
Max Q Clear Time (g_c+I1), s		2.4				4.3		2.3				
Green Ext Time (p_c), s		0.9				9.2		0.2				

Intersection Summary			
HCM 6th Ctrl Delay			4.5
HCM 6th LOS			A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	235	669	20	3	25
Future Vol, veh/h	43	235	669	20	3	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	7	7	7	7	7	7
Mvmt Flow	46	250	712	21	3	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	733	0	-	0	1065	723
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	342	-
Critical Hdwy	4.17	-	-	-	6.47	6.27
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	2.263	-	-	-	3.563	3.363
Pot Cap-1 Maneuver	849	-	-	-	241	418
Stage 1	-	-	-	-	472	-
Stage 2	-	-	-	-	708	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	849	-	-	-	226	418
Mov Cap-2 Maneuver	-	-	-	-	226	-
Stage 1	-	-	-	-	442	-
Stage 2	-	-	-	-	708	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	849	-	-	-	383
HCM Lane V/C Ratio	0.054	-	-	-	0.078
HCM Control Delay (s)	9.5	0	-	-	15.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Intersection: 1A: SR 99 SB & Sankey Rd

Movement	EB	WB	SB
Directions Served	T	LT	L
Maximum Queue (ft)	24	21	14
Average Queue (ft)	4	6	2
95th Queue (ft)	20	28	18
Link Distance (ft)	518	77	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			540
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1B: SR 99 NB & Sankey Rd

Movement	EB	WB
Directions Served	LT	T
Maximum Queue (ft)	67	41
Average Queue (ft)	40	13
95th Queue (ft)	76	43
Link Distance (ft)	77	289
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	1	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1

Intersection: 2: Pacific Avenue & Sankey Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	12	28
Average Queue (ft)	2	7
95th Queue (ft)	15	27
Link Distance (ft)	869	463
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: SR 99 SB Ramps & W Riego Rd

Movement	EB	WB	WB	WB	SB	SB
Directions Served	T	T	T	R	LTR	R
Maximum Queue (ft)	19	36	6	2	64	40
Average Queue (ft)	3	11	1	0	38	8
95th Queue (ft)	15	38	9	4	71	34
Link Distance (ft)	329	993	993	993		1483
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)					330	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: SR 99 NB Ramps & W Riego Rd

Movement	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	L	LTR	R
Maximum Queue (ft)	45	70	24	82	173	10	94	44
Average Queue (ft)	19	33	6	30	103	2	60	19
95th Queue (ft)	54	77	24	83	173	20	96	49
Link Distance (ft)	993	993	471	471	471		926	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)						570		570
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: W Riego Rd & Pacific Avenue

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	64	43
Average Queue (ft)	28	21
95th Queue (ft)	72	47
Link Distance (ft)	354	388
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Existing Conditions - Sankey Rd/SR 99

PM Peak Hour

Int 2								
Movement	EBT	EBR	WBU	WBL	WBT	SBL	SBT	SBR
Volume	2	6	1	28	1	34	1297	2
Delay	10.2	1	0	2.5	0	4.7	0.8	0.5

Int 222							
Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Volume	1	36	30	57	0	2359	51
Delay	0	63.6	59.5	1.8	0	2.1	1.6

COMBINED															
Movement	SBU	SBL	SBT	SBR	EBL	EBT	EBR	NBU	NBL	NBT	NBR	WBL	WBT	WBR	WBU
Volume	0	34	1297	2	1	1	6	0	0	2359	51	28	1	57	1
Delay	4.7	68.3	0.8	0.5	10.2	73.8	1	2.5	0	2.1	1.6	62	59.5	1.8	123.1

Delay/veh	**2.7**
Delay/veh (worse mvmnt)	**123.1**

Intersection						
Int Delay, s/veh	5.2					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	5	10	32	39	65
Future Vol, veh/h	55	5	10	32	39	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	6	13	42	51	84

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	77	0	142	74
Stage 1	-	-	-	-	74	-
Stage 2	-	-	-	-	68	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1522	-	851	988
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	955	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1522	-	843	988
Mov Cap-2 Maneuver	-	-	-	-	843	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	946	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	928	-	-	1522	-
HCM Lane V/C Ratio	0.146	-	-	0.009	-
HCM Control Delay (s)	9.5	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	24	22	0	17	321	0	0	0	40	0	5
Future Volume (veh/h)	0	24	22	0	17	321	0	0	0	40	0	5
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
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	1841	1841	0	1841	1841				1841	1841	1841
Adj Flow Rate, veh/h	0	27	0	0	19	0				44	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	4	4	0	4	4				4	4	4
Cap, veh/h	0	1340		0	1340					132	0	118
Arrive On Green	0.00	0.38	0.00	0.00	0.38	0.00				0.08	0.00	0.00
Sat Flow, veh/h	0	3589	1560	0	3589	1560				1753	0	1560
Grp Volume(v), veh/h	0	27	0	0	19	0				44	0	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	0	1749	1560				1753	0	1560
Q Serve(g_s), s	0.0	0.1	0.0	0.0	0.1	0.0				0.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.1	0.0	0.0	0.1	0.0				0.5	0.0	0.0
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1340		0	1340					132	0	118
V/C Ratio(X)	0.00	0.02		0.00	0.01					0.33	0.00	0.00
Avail Cap(c_a), veh/h	0	3853		0	3015					2267	0	2017
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	0.00
Uniform Delay (d), s/veh	0.0	4.0	0.0	0.0	4.0	0.0				9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				1.5	0.0	0.0
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	0.0	0.0	0.0	0.0	0.0				0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.0	0.0	0.0	4.0	0.0				10.6	0.0	0.0
LnGrp LOS	A	A		A	A					B	A	A
Approach Vol, veh/h		27	A		19	A					44	
Approach Delay, s/veh		4.0			4.0						10.6	
Approach LOS		A			A						B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		14.2		6.7		14.2
Change Period (Y+Rc), s		* 6.2		5.1		* 6.2
Max Green Setting (Gmax), s		* 23		27.0		* 18
Max Q Clear Time (g_c+I1), s		2.1		2.5		2.1
Green Ext Time (p_c), s		0.1		0.2		0.0

Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	50	14	0	327	84	11	0	679	0	0	0
Future Volume (veh/h)	0	50	14	0	327	84	11	0	679	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
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	1841	1841	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	0	56	0	0	363	0	8	0	173			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	4	4	0	4	4	4	4	4			
Cap, veh/h	0	1113		0	1599		360	0	641			
Arrive On Green	0.00	0.32	0.00	0.00	0.32	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	0	3589	1560	0	5191	1560	1753	0	3120			
Grp Volume(v), veh/h	0	56	0	0	363	0	8	0	173			
Grp Sat Flow(s),veh/h/ln	0	1749	1560	0	1675	1560	1753	0	1560			
Q Serve(g_s), s	0.0	0.3	0.0	0.0	1.3	0.0	0.1	0.0	1.1			
Cycle Q Clear(g_c), s	0.0	0.3	0.0	0.0	1.3	0.0	0.1	0.0	1.1			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1113		0	1599		360	0	641			
V/C Ratio(X)	0.00	0.05		0.00	0.23		0.02	0.00	0.27			
Avail Cap(c_a), veh/h	0	5454		0	7837		1995	0	3550			
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	5.6	0.0	0.0	5.9	0.0	7.5	0.0	7.9			
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.3			
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	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.6	0.0	0.0	6.1	0.0	7.6	0.0	8.2			
LnGrp LOS	A	A		A	A		A	A	A			
Approach Vol, veh/h		56	A		363	A		181				
Approach Delay, s/veh		5.6			6.1			8.2				
Approach LOS		A			A			A				

Timer - Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		13.7				13.7		10.0
Change Period (Y+Rc), s		* 6.2				* 6.2		5.1
Max Green Setting (Gmax), s		* 37				* 37		27.0
Max Q Clear Time (g_c+I1), s		2.3				3.3		3.1
Green Ext Time (p_c), s		0.5				4.3		1.0

Intersection Summary	
HCM 6th Ctrl Delay	6.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection							
Int Delay, s/veh	1.6						

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	31	675	1	315	9	27	68
Future Vol, veh/h	31	675	1	315	9	27	68
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	-	-	-	-	-	0	-
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96
Heavy Vehicles, %	5	5	5	5	5	5	5
Mvmt Flow	32	703	1	328	9	28	71

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	337	0	-	-	0	1100	333
Stage 1	-	-	-	-	-	333	-
Stage 2	-	-	-	-	-	767	-
Critical Hdwy	4.15	-	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1206	-	-	-	-	232	702
Stage 1	-	-	-	-	-	719	-
Stage 2	-	-	-	-	-	453	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	1206	-	-	-	-	222	702
Mov Cap-2 Maneuver	-	-	-	-	-	222	-
Stage 1	-	-	-	-	-	687	-
Stage 2	-	-	-	-	-	453	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4		15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1206	-	-	-	435
HCM Lane V/C Ratio	0.027	-	-	-	0.227
HCM Control Delay (s)	8.1	0	-	-	15.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Intersection: 1A: SR 99 SB & Sankey Rd

Movement	EB	WB	SB
Directions Served	T	ULT	L
Maximum Queue (ft)	18	23	14
Average Queue (ft)	3	4	2
95th Queue (ft)	17	23	14
Link Distance (ft)	518	77	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			540
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1B: SR 99 NB & Sankey Rd

Movement	EB	WB	WB
Directions Served	LT	T	R
Maximum Queue (ft)	70	64	25
Average Queue (ft)	38	34	4
95th Queue (ft)	81	74	37
Link Distance (ft)	77	289	
Upstream Blk Time (%)	7		
Queuing Penalty (veh)	2		
Storage Bay Dist (ft)			100
Storage Blk Time (%)		0	0
Queuing Penalty (veh)		0	0

Network Summary

Network wide Queuing Penalty: 3

Intersection: 2: Pacific Avenue & Sankey Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	5	55
Average Queue (ft)	1	36
95th Queue (ft)	7	56
Link Distance (ft)	864	439
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: SB 99 SB Slip On-Ramp/SR 99 SB Ramps & W Riego Rd

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	T	LTR	R
Maximum Queue (ft)	12	17	32	21	50	26
Average Queue (ft)	2	4	6	5	28	8
95th Queue (ft)	13	16	28	23	57	30
Link Distance (ft)	329	329	993	993		1483
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)					330	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: SR 99 NB Ramps/SR 99 NB Slip On-Ramp & W Riego Rd

Movement	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	L	LTR	R
Maximum Queue (ft)	31	54	15	65	152	15	195	160
Average Queue (ft)	11	24	3	25	89	2	118	66
95th Queue (ft)	37	59	14	62	156	18	199	161
Link Distance (ft)	993	993	471	471	471		926	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)						570		570
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: W Riego Rd & Pacific Avenue

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	43	68
Average Queue (ft)	11	39
95th Queue (ft)	46	69
Link Distance (ft)	354	400
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Existing Plus Project Conditions - Sankey Rd/SR 99

AM Peak Hour

Int 2

Movement	EBT	EBR	WBU	WBL	WBT	SBL	SBT	SBR
Volume	3	2	0	13	3	67	2169	5
Delay	31.7	0	0	2.9	0	2.7	2.2	1.8

Int 222

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Volume	3	67	13	14	3	995	32
Delay	0	9.3	13.6	1.1	0.1	1.1	1.9

COMBINED

Movement	SBU	SBL	SBT	SBR	EBL	EBT	EBR	NBU	NBL	NBT	NBR	WBL	WBT	WBR	WBU
Volume	1	66	2169	5	2	1	2	0	3	995	32	13	0	14	0
Delay	2.7	12	2.2	1.8	31.7	41	0	0	0.1	1.1	1.9	16.5	0	1.1	0

Delay/veh	**2.1**
Delay/veh (worse mvmnt)	**41.0**

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	20	56	39	27	5	5
Future Vol, veh/h	20	56	39	27	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	24	67	47	33	6	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	91	0	185	58
Stage 1	-	-	-	-	58	-
Stage 2	-	-	-	-	127	-
Critical Hdwy	-	-	4.23	-	6.53	6.33
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	-	-	2.317	-	3.617	3.417
Pot Cap-1 Maneuver	-	-	1437	-	780	978
Stage 1	-	-	-	-	937	-
Stage 2	-	-	-	-	872	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1437	-	754	978
Mov Cap-2 Maneuver	-	-	-	-	754	-
Stage 1	-	-	-	-	937	-
Stage 2	-	-	-	-	843	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.5	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	852	-	-	1437	-
HCM Lane V/C Ratio	0.014	-	-	0.033	-
HCM Control Delay (s)	9.3	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	12	8	0	27	662	0	0	0	81	0	8
Future Volume (veh/h)	0	12	8	0	27	662	0	0	0	81	0	8
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
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	1781	1781	0	1781	1767				1781	1781	1781
Adj Flow Rate, veh/h	0	13	0	0	29	0				86	0	0
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	8	8	0	8	9				8	8	8
Cap, veh/h	0	1221		0	1221					220	0	196
Arrive On Green	0.00	0.36	0.00	0.00	0.36	0.00				0.13	0.00	0.00
Sat Flow, veh/h	0	3474	1510	0	3474	1497				1697	0	1510
Grp Volume(v), veh/h	0	13	0	0	29	0				86	0	0
Grp Sat Flow(s),veh/h/ln	0	1692	1510	0	1692	1497				1697	0	1510
Q Serve(g_s), s	0.0	0.1	0.0	0.0	0.1	0.0				1.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.1	0.0	0.0	0.1	0.0				1.0	0.0	0.0
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1221		0	1221					220	0	196
V/C Ratio(X)	0.00	0.01		0.00	0.02					0.39	0.00	0.00
Avail Cap(c_a), veh/h	0	3510		0	2747					2065	0	1838
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	0.00
Uniform Delay (d), s/veh	0.0	4.5	0.0	0.0	4.6	0.0				8.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				1.1	0.0	0.0
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	0.0	0.0	0.0	0.0	0.0				0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.6	0.0	0.0	4.6	0.0				10.0	0.0	0.0
LnGrp LOS	A	A		A	A					A	A	A
Approach Vol, veh/h		13	A		29	A					86	
Approach Delay, s/veh		4.6			4.6						10.0	
Approach LOS		A			A						A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		14.2		8.0		14.2						
Change Period (Y+Rc), s		* 6.2		5.1		* 6.2						
Max Green Setting (Gmax), s		* 23		27.0		* 18						
Max Q Clear Time (g_c+I1), s		2.1		3.0		2.1						
Green Ext Time (p_c), s		0.0		0.4		0.1						

Intersection Summary		
HCM 6th Ctrl Delay		8.2
HCM 6th LOS		A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	90	3	0	679	34	10	0	236	0	0	0
Future Volume (veh/h)	0	90	3	0	679	34	10	0	236	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
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	1781	1781	0	1767	1781	1781	1781	1767			
Adj Flow Rate, veh/h	0	96	0	0	722	0	7	0	43			
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	8	8	0	9	8	8	8	9			
Cap, veh/h	0	1701		0	2424		137	0	243			
Arrive On Green	0.00	0.50	0.00	0.00	0.50	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	0	3474	1510	0	4982	1510	1697	0	2994			
Grp Volume(v), veh/h	0	96	0	0	722	0	7	0	43			
Grp Sat Flow(s),veh/h/ln	0	1692	1510	0	1608	1510	1697	0	1497			
Q Serve(g_s), s	0.0	0.4	0.0	0.0	2.4	0.0	0.1	0.0	0.4			
Cycle Q Clear(g_c), s	0.0	0.4	0.0	0.0	2.4	0.0	0.1	0.0	0.4			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1701		0	2424		137	0	243			
V/C Ratio(X)	0.00	0.06		0.00	0.30		0.05	0.00	0.18			
Avail Cap(c_a), veh/h	0	4615		0	6575		1688	0	2979			
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	3.5	0.0	0.0	3.9	0.0	11.5	0.0	11.6			
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.1	0.0	0.2	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	3.5	0.0	0.0	4.1	0.0	11.7	0.0	12.1			
LnGrp LOS	A	A		A	A		B	A	B			
Approach Vol, veh/h		96	A		722	A		50				
Approach Delay, s/veh		3.5			4.1			12.1				
Approach LOS		A			A			B				

Timer - Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		19.8				19.8		7.3
Change Period (Y+Rc), s		* 6.2				* 6.2		5.1
Max Green Setting (Gmax), s		* 37				* 37		27.0
Max Q Clear Time (g_c+I1), s		2.4				4.4		2.4
Green Ext Time (p_c), s		0.9				9.3		0.2

Intersection Summary	
HCM 6th Ctrl Delay	4.5
HCM 6th LOS	A

Notes
User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	52	235	669	25	4	31
Future Vol, veh/h	52	235	669	25	4	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	12	7	7	6	5	19
Mvmt Flow	55	250	712	27	4	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	739	0	-	0	1086	726
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	360	-
Critical Hdwy	4.22	-	-	-	6.45	6.39
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.308	-	-	-	3.545	3.471
Pot Cap-1 Maneuver	824	-	-	-	236	398
Stage 1	-	-	-	-	474	-
Stage 2	-	-	-	-	699	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	824	-	-	-	218	398
Mov Cap-2 Maneuver	-	-	-	-	218	-
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	699	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	16
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	824	-	-	-	364
HCM Lane V/C Ratio	0.067	-	-	-	0.102
HCM Control Delay (s)	9.7	0	-	-	16
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Intersection: 1A: SR 99 SB & Sankey Rd

Movement	EB	WB	SB
Directions Served	T	LT	L
Maximum Queue (ft)	24	21	14
Average Queue (ft)	4	6	2
95th Queue (ft)	20	28	18
Link Distance (ft)	518	77	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			540
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1B: SR 99 NB & Sankey Rd

Movement	EB	WB
Directions Served	LT	T
Maximum Queue (ft)	67	41
Average Queue (ft)	41	13
95th Queue (ft)	76	43
Link Distance (ft)	77	289
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	1	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1

Intersection: 2: Pacific Avenue & Sankey Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	20	32
Average Queue (ft)	3	10
95th Queue (ft)	19	35
Link Distance (ft)	869	463
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: SR 99 SB Ramps & W Riego Rd

Movement	EB	WB	WB	SB	SB
Directions Served	T	T	T	LTR	R
Maximum Queue (ft)	15	36	6	79	36
Average Queue (ft)	2	10	1	44	10
95th Queue (ft)	12	38	11	85	36
Link Distance (ft)	329	993	993		1483
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				330	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: SR 99 NB Ramps & W Riego Rd

Movement	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	L	LTR	R
Maximum Queue (ft)	55	79	18	127	204	6	102	47
Average Queue (ft)	19	35	5	45	117	1	64	18
95th Queue (ft)	57	86	17	120	206	10	104	50
Link Distance (ft)	993	993	471	471	471		926	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)						570		570
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: W Riego Rd & Pacific Avenue

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	96	52
Average Queue (ft)	31	27
95th Queue (ft)	84	57
Link Distance (ft)	354	388
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Existing Plus Project Conditions - Sankey Rd/SR 99

PM Peak Hour

Int 2

Movement	EBT	EBR	WBU	WBL	WBT	SBL	SBT	SBR
Volume	2	6	1	28	1	35	1297	2
Delay	10.1	1	0	2.6	0	19.7	0.8	0.5

Int 222

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Volume	1	37	30	58	0	2359	51
Delay	0	67.3	61.9	1.8	0	2.1	1.6

COMBINED

Movement	SBU	SBL	SBT	SBR	EBL	EBT	EBR	NBU	NBL	NBT	NBR	WBL	WBT	WBR	WBU
Volume	0	35	1297	2	1	1	6	0	0	2359	51	28	1	58	1
Delay	19.7	87	0.8	0.5	10.1	77.4	1	2.6	0	2.1	1.6	64.5	61.9	1.8	129.2

Delay/veh	**2.9**
Delay/veh (worse mvmnt)	**129.2**

Intersection	
Int Delay, s/veh	5.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	6	10	32	40	66
Future Vol, veh/h	55	6	10	32	40	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	8	13	42	52	86

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	79	0	143	75
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	68	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1519	-	850	986
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	955	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1519	-	842	986
Mov Cap-2 Maneuver	-	-	-	-	842	-
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	946	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	926	-	-	1519	-
HCM Lane V/C Ratio	0.149	-	-	0.009	-
HCM Control Delay (s)	9.6	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	24	22	0	17	328	0	0	0	40	0	5
Future Volume (veh/h)	0	24	22	0	17	328	0	0	0	40	0	5
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
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	1841	1841	0	1841	1841				1841	1841	1841
Adj Flow Rate, veh/h	0	27	0	0	19	0				44	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	4	4	0	4	4				4	4	4
Cap, veh/h	0	1340		0	1340					132	0	118
Arrive On Green	0.00	0.38	0.00	0.00	0.38	0.00				0.08	0.00	0.00
Sat Flow, veh/h	0	3589	1560	0	3589	1560				1753	0	1560
Grp Volume(v), veh/h	0	27	0	0	19	0				44	0	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	0	1749	1560				1753	0	1560
Q Serve(g_s), s	0.0	0.1	0.0	0.0	0.1	0.0				0.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.1	0.0	0.0	0.1	0.0				0.5	0.0	0.0
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1340		0	1340					132	0	118
V/C Ratio(X)	0.00	0.02		0.00	0.01					0.33	0.00	0.00
Avail Cap(c_a), veh/h	0	3853		0	3015					2267	0	2017
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	0.00
Uniform Delay (d), s/veh	0.0	4.0	0.0	0.0	4.0	0.0				9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				1.5	0.0	0.0
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	0.0	0.0	0.0	0.0	0.0				0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.0	0.0	0.0	4.0	0.0				10.6	0.0	0.0
LnGrp LOS	A	A		A	A					B	A	A
Approach Vol, veh/h		27	A		19	A					44	
Approach Delay, s/veh		4.0			4.0						10.6	
Approach LOS		A			A						B	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		14.2		6.7		14.2						
Change Period (Y+Rc), s		* 6.2		5.1		* 6.2						
Max Green Setting (Gmax), s		* 23		27.0		* 18						
Max Q Clear Time (g_c+I1), s		2.1		2.5		2.1						
Green Ext Time (p_c), s		0.1		0.2		0.0						

Intersection Summary			
HCM 6th Ctrl Delay			7.2
HCM 6th LOS			A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	50	14	0	334	84	11	0	685	0	0	0
Future Volume (veh/h)	0	50	14	0	334	84	11	0	685	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
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	1841	1841	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	0	56	0	0	371	0	8	0	173			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	4	4	0	4	4	4	4	4			
Cap, veh/h	0	1126		0	1617		359	0	639			
Arrive On Green	0.00	0.32	0.00	0.00	0.32	0.00	0.20	0.00	0.20			
Sat Flow, veh/h	0	3589	1560	0	5191	1560	1753	0	3120			
Grp Volume(v), veh/h	0	56	0	0	371	0	8	0	173			
Grp Sat Flow(s),veh/h/ln	0	1749	1560	0	1675	1560	1753	0	1560			
Q Serve(g_s), s	0.0	0.3	0.0	0.0	1.3	0.0	0.1	0.0	1.1			
Cycle Q Clear(g_c), s	0.0	0.3	0.0	0.0	1.3	0.0	0.1	0.0	1.1			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1126		0	1617		359	0	639			
V/C Ratio(X)	0.00	0.05		0.00	0.23		0.02	0.00	0.27			
Avail Cap(c_a), veh/h	0	5420		0	7787		1982	0	3528			
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	5.6	0.0	0.0	5.9	0.0	7.6	0.0	8.0			
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.3			
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	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.6	0.0	0.0	6.1	0.0	7.6	0.0	8.3			
LnGrp LOS	A	A		A	A		A	A	A			
Approach Vol, veh/h		56	A		371	A		181				
Approach Delay, s/veh		5.6			6.1			8.3				
Approach LOS		A			A			A				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		13.9				13.9		10.0				
Change Period (Y+Rc), s		* 6.2				* 6.2		5.1				
Max Green Setting (Gmax), s		* 37				* 37		27.0				
Max Q Clear Time (g_c+I1), s		2.3				3.3		3.1				
Green Ext Time (p_c), s		0.5				4.4		1.0				

Intersection Summary			
HCM 6th Ctrl Delay			6.7
HCM 6th LOS			A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection							
Int Delay, s/veh	1.8						

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	37	675	1	315	13	33	75
Future Vol, veh/h	37	675	1	315	13	33	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	-	-	-	-	-	0	-
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96
Heavy Vehicles, %	10	5	5	5	3	4	6
Mvmt Flow	39	703	1	328	14	34	78

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	342	0	-	-	0	1116	335
Stage 1	-	-	-	-	-	335	-
Stage 2	-	-	-	-	-	781	-
Critical Hdwy	4.2	-	-	-	-	6.44	6.26
Critical Hdwy Stg 1	-	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	-	5.44	-
Follow-up Hdwy	2.29	-	-	-	-	3.536	3.354
Pot Cap-1 Maneuver	1174	-	-	-	-	228	698
Stage 1	-	-	-	-	-	720	-
Stage 2	-	-	-	-	-	448	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	1174	-	-	-	-	215	698
Mov Cap-2 Maneuver	-	-	-	-	-	215	-
Stage 1	-	-	-	-	-	680	-
Stage 2	-	-	-	-	-	448	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4		16.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1174	-	-	-	414
HCM Lane V/C Ratio	0.033	-	-	-	0.272
HCM Control Delay (s)	8.2	0	-	-	16.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.1

Intersection: 1A: SR 99 SB & Sankey Rd

Movement	EB	WB	SB
Directions Served	T	ULT	L
Maximum Queue (ft)	18	23	24
Average Queue (ft)	3	4	8
95th Queue (ft)	16	25	48
Link Distance (ft)	518	77	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			540
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1B: SR 99 NB & Sankey Rd

Movement	EB	WB	WB
Directions Served	LT	T	R
Maximum Queue (ft)	70	64	25
Average Queue (ft)	39	34	4
95th Queue (ft)	83	73	37
Link Distance (ft)	77	289	
Upstream Blk Time (%)	12		
Queuing Penalty (veh)	4		
Storage Bay Dist (ft)			100
Storage Blk Time (%)		0	0
Queuing Penalty (veh)		0	0

Network Summary

Network wide Queuing Penalty: 5

Intersection: 2: Pacific Avenue & Sankey Road

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	2	50
Average Queue (ft)	0	36
95th Queue (ft)	5	56
Link Distance (ft)	864	439
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: SB 99 SB Slip On-Ramp/SR 99 SB Ramps & W Riego Rd

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	T	LTR	R
Maximum Queue (ft)	15	17	28	17	54	20
Average Queue (ft)	3	6	6	2	26	5
95th Queue (ft)	14	20	25	16	61	22
Link Distance (ft)	329	329	993	993		1483
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)					330	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: SR 99 NB Ramps/SR 99 NB Slip On-Ramp & W Riego Rd

Movement	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	L	LTR	R
Maximum Queue (ft)	37	56	19	83	142	16	184	155
Average Queue (ft)	10	25	4	32	94	2	120	68
95th Queue (ft)	36	63	17	81	153	16	192	152
Link Distance (ft)	993	993	471	471	471		926	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)						570		570
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: W Riego Rd & Pacific Avenue

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	76	77
Average Queue (ft)	18	47
95th Queue (ft)	71	80
Link Distance (ft)	354	400
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0